

Bibliography and Epitome*

VOL. 53	ACTA NEUR. PSYCHIAT. BELG.	1953
	An Encephalitis without Paralysis Subsequent to Antirabies Vaccination. <i>Van Bogaert, L.</i>	595
	Studies on Chronic Poliomyelitis. <i>Henneaux, J.</i>	604
	Prechiasmatic Syndrome of Aneurysmal Origin. <i>Davis, P., and Brihaye-van Geertruyden, M.</i>	615
	First Results from the Antiepileptic Drug Mysoline. <i>André-Balisaux, G.</i>	628
	The Anatomical Basis of Cerebellar Localisation. <i>Brodal, A.</i>	657
	Contribution to the Experimental Study of Szondi's Test. <i>Flament, J.</i>	675
	A Case of Tumour of the Jugular Body. <i>Carbone, F., et al.</i>	735
	An Electroclinical Study of a New Case of Subacute Sclerosing Leucoencephalitis. <i>Thiry, S., et al.</i>	746
	Neuromuscular Biopsies. <i>Coërs, C.</i>	759
	The Citric Acid Content of the Fluid from Cysts of Cerebral Tumours and of the Lumbar and Ventricular Cerebro-spinal Fluid. <i>Pelc, S., and Cumings, J. N.</i>	766
	ACTA PSYCHIAT. NEUROL., SUPPT.	1953
	Report on the 10th Congress of Scandinavian Psychiatrists	No. 80
	Variations in Human Body-build. <i>Lindegård, B.</i>	No. 86
	The Modification of Convulsion Therapy by Muscle-relaxant Drugs. <i>Montagu, J. D.</i>	No. 87
VOL. 15	AM. J. MED.	1953
	Clinical Problems in Neuromuscular Physiology. <i>Denny-Brown, D.</i>	368
	Genetic and Biochemical Aspects of Wilson's Disease. <i>Bearn, A. G.</i>	442
	Liver Dysfunction in Hepatolenticular Degeneration. <i>Franklin, E. C., and Bauman, A.</i>	450
VOL. 58	AM. J. MENT. DEFIC.	1954
	Day Classes for Severely Retarded Children. <i>Boggs, E. M.</i>	357
	The Education of the Severely Retarded Child. <i>Lieberman, D.</i>	397
	Emotional Problems in State Institutions for the Mentally Retarded. <i>Levine, S.</i>	403
	Rehabilitation of the Mentally Retarded. <i>Wright, M.</i>	408
	A Wide-Age Range Class of Mentally Retarded Children. <i>Snyder, E. E., and De Prospe, C. J.</i>	411
	The Organization of a Training Program for the Cerebral Palsied in an Institution for Mentally Deficient. <i>Bowlus, D. E.</i>	419
	An Exploratory Program for the Vocational Adjustment of Mentally Handicapped Adolescents. <i>Trachtman, A.</i>	424
	Teaching Reading to the Brain-injured Child. <i>Dinsmore, M.</i>	431
	The Danger of Serum Hepatitis Associated with the Improperly Supervised Routine Laboratory Collection of Bloods. <i>Drake, M. E., and Ming, C.</i>	436
	Recent Trends in Classification of Neuro-pathological Findings in Mental Deficiency. <i>Malamud, N.</i>	438
	Indication for Need of Chiropractical Treatment for Mental Defectives. <i>Hamilton, J. A.</i>	448
	The Role of Mental Deficiency in the Causation of Criminal Behavior. <i>Levy, S.</i>	455
	Special Diet for Feeding Advanced Spastics and Low Grade Mental Defectives who Present Feeding Problems. <i>Wolfson, I. N., et al.</i>	465
	Towards the Establishment of Special Clinics for Retarded Children. <i>Wortis, J.</i>	472
	An Exploratory Study of the Full-range Picture Vocabulary Test with Mental Defectives. <i>Sloan, W., and Bensberg, G. J.</i>	481
	Psychotherapy with the Mentally Retarded. <i>Burton, A.</i>	490
	Personality Profiles of More Successful and Less Successful Psychiatric Technicians. <i>Cattell, R. B., and Shorwell, A. M.</i>	496
	Social Adjustment. <i>Lawrence, E. S.</i>	500
VOL. 66	AM. J. OBSTET. GYN.	1953
	Cerebral Circulation and Metabolism in Toxaemia of Pregnancy. <i>McCall, M. L.</i>	1015
VOL. 23	AM. J. ORTHOPSYCHIAT.	OCTOBER, 1953
	The Education of Emotionally Disturbed Children—Symposium	667
	A Proposed Technique for the Evaluation of Psychotherapy. <i>Morse, P. W.</i>	716

* A number of abstracts in this section are reproduced from *Chemical Abstracts*. To the Editors of this Journal we extend our grateful thanks.

Some Approaches to the Problem of Evaluation of Mental Ability with the Mosaic Test. <i>Woolf, H., and Gerson, E.</i>	732
A Comparison of Rorschach Retests with Behavior Changes in a Group of Emotionally Disturbed Children. <i>Kessler, J. W., and Wolfenstein, C. M.</i>	740
The Impact of a Shift in the Psychological Constellation of the Family on the Treatment of a Stuttering Boy. <i>Glauber, H. M.</i>	755
Psychiatric Consultation in a Rural Setting. <i>Maddux, J. F.</i>	775
Utilization of the Psychiatric Caseworker as Consultant During the Psychoanalytically Oriented Therapy of a Patient. <i>Dewald, P. A., and Harle, M.</i>	785
Complications in Therapy with Adopted Children. <i>Eiduson, B. T., and Livermore, J. B.</i>	795
Psychological Appraisal of the "Unattached" Preschool Child. <i>Fischer, L. K.</i>	803
The Family Constellation of a Group of Schizophrenic Patients. <i>Plank, R.</i>	817
VOL. 32	1953
AM. J. PHYS. MED.	
Effects of Carbon Dioxide and Oxygen Inhalation on Movements and Muscular Hypertonus in Athetoids. <i>Fay, T.</i>	338
Some Eye Defects seen in Cerebral Palsy. <i>Guibor, G.</i>	342
Some Problems for Psychological Research in Cerebral Palsy. <i>Garnezy, N.</i>	348
VOL. 174	1953
AM. J. PHYSIOL.	
Chemical Changes in Rabbit Brain During Anoxia. <i>Albaum, H. G., et al.</i>	408
VOL. 175	
Effects of Hypothalamic Lesions on Adrenal Cortical Response to Stress in Rat. <i>McCann, S. M.</i>	13
VOL. 110	1953
AM. J. PSYCHIAT.	
NOVEMBER,	
Faith and Delusion in Psychotherapy. <i>Masserman, J. H.</i>	324
Quantification of the Severity of Overt Psychotic Symptoms. <i>Goodrich, D. W.</i>	334
The Function of the "Administrative Groups" in a Mental Hospital Group Therapy Program. <i>Cruvant, B. A.</i>	342
Psychotic Depressive Reactions in Soldiers who Accidentally Killed their "Buddies". <i>Beck, A. T., and Valin, S.</i>	347
Immediate Fatal Coronary Thrombosis Following ECT. <i>Sisler, G. C., and Wilt, J. C.</i>	354
Erasure of Growth. <i>Angyal, A.</i>	358
Some Research Findings on the Validity of Group Psychotherapy as a Diagnostic and Therapeutic Approach. <i>Borgatta, E. F.</i>	362
The Electrical Activity of the Brain in a Case of Atabrine Psychosis. <i>Halpern, L., et al.</i>	366
The Feeling of Superiority. <i>Marmor, J.</i>	370
Recurrent Psychotic Episodes in Middle Life. <i>Bernstein, N. R.</i>	377
A New Look at Freud's Dream "The Breakfast Ship". <i>Adams, L.</i>	381
DECEMBER	
Dynamics and Classification of Disordered Behavior. <i>Rado, S.</i>	406
Discussion of Dr. Sandor Rado's Academic Lecture. <i>Menninger, K. A., Gerty, F. J., and Raines, G. N.</i>	417
Order/Disorder. <i>Kahn, E.</i>	427
The Implications of the Psychogenetic Hypothesis for Mental Hygiene. <i>Lemkau, P. V., et al.</i>	436
Personnel Awareness of Patients' Socializing Capacity. <i>Morimoto, F. R., and Greenblatt, M.</i>	443
Psychotherapy of Schizophrenia in an Outpatient Setting. <i>Mann, J.</i>	448
Psychiatric Problems in Elderly Residents of Country Homes. <i>Ginzberg, R., and Brinegar, W. C.</i>	454
Individualizing the Care of the Aging. <i>Clow, H. E.</i>	460
Appraisal of the Witness. <i>Davidson, H. A.</i>	481
The Jaw as an Organ of Aggression. <i>Levin, M.</i>	487
Review of Psychiatric Progress, 1953	489
VOL. 7	1953
AM. J. PSYCHOTHER.	
OCTOBER,	
Aspects of Clinical Training in Psychotherapy. <i>Sager, C. J.</i>	633
Selection of Patients for Short-term Psychotherapy. <i>Pumpian-Mindlin, E.</i>	641
Technique of Employing Doctor-Patient Transactions in Psychoanalysis. <i>Schacht, M.</i>	653
On Premenstrual Depression. <i>Shick, A.</i>	664
The Significance of Helplessness. <i>Hyroop, M. H.</i>	672
Counter-Transference in Groups. <i>Mullan, H.</i>	680
VOL. 70	1953
AM. J. ROENTGENOL. RAD. THER.	
Insulo-opicular Arteries of Brain, with Special Reference to Angiography of Stri-thalamic Tumors. <i>Schlesinger, B.</i>	555

1954]	BIBLIOGRAPHY AND EPITOME	763
VOL. 4	AM. PRACT. DIG. TREAT.	1953
Physician and Alcoholism. <i>Block, M. A.</i>		694
VOL. 68	AM. REV. TUBERCUL.	1953
Study of Effects of Isoniazid on Emotions of Tuberculous Patients. <i>Lorenz, T. H., et al.</i>		523
VOL. 39	ANN. INT. MED.	1953
Management of Cerebral Vascular Accidents. <i>Nielsen, J. M.</i>		717
VOL. 111	ANN. MED.-PSYCHOL.	1953
The Validity of Personality Tests in Psychiatry. V. The Szondi Test. <i>Delay, J., et al.</i> ..		449
The Validity of the Test of Szondi. <i>Pruschy-Béjarano, R.</i>		468
Serological Reactions in the C.S.F. of Trypanosomes and Suspected Trypanosomiasis.		
<i>Lapeyssonnie, L.</i>		500
Intellectual Longevity. <i>Marchand, L.</i>		617
Interest in Granulo-diagnosis in Psychiatry. <i>Gardes, A., and Schnetzler, J. P.</i> ..		637
VOL. 138	ANN. SURG.	1953
Capsular Operation for Parkinsonism. <i>Browder, J., et al.</i>		502
EEG in Evaluation of Effects of Anesthetic Agents and Carbon Dioxide Accumulation.		
<i>Clowes, G. H. A., jun., et al.</i>		558
VOL. 28	ARCH. DIS. CHILD.	1953
Classification of Enuresis. <i>Poulton, E. M., and Hinden, E.</i>		392
VOL. 10	ARCH. FR. PÉD.	1953
Investigation of Mongolism in Northern France. <i>Gerard-Lefebvre, M., et al.</i>		834
VOL. 92	ARCH. INT. MED.	1953
Studies on Headache. <i>Wolff, H. G., et al.</i>		478
VOL. 2	ARCH. INTERNAT. STUD. NEUR.	1953
A Primary Sarcoma of the Brain. <i>Zuelch, K. J.</i>		97
Polymorphism in Neuroblastosis of the Central Nervous System. <i>Gerebetzoff, M. A., and Thiary, S.</i>		132
Evolution in the Human Foetus of the Cell Groups of the Anterior Horn of the Spinal Cord. <i>de Leonardis, L.</i>		141
The EEGs in a Group of Children with Behaviour Disorders. <i>Klackenberg, G., and Melin, K.-A.</i>		161
Conditioned Vegetative States and Experimental Neuroses. <i>Meco, O.</i>		167
VOL. 70	ARCH. NEUR. PSYCHIAT.	NOVEMBER, 1953
*Studies on Headache. <i>Tunis, M. M., and Wolff, H. G.</i>		551
*Factors that Influence Prognosis in Acute Focal Cerebrovascular Lesions. <i>Millikin, C. H., and Moersch, F. P.</i>		558
Failure of Abnormal CSF Pressure to Influence Cerebral Function. <i>Ryder, H. W., et al.</i>		563
*Some Relationships of Intelligence, Mental Efficiency, Mental Deterioration and Disease. <i>Manson, M. P.</i>		587
*Pituitary-Adrenal Cortex Reactivity in Schizophrenic Patients. <i>Fry, W. F.</i>		598
Central Inhibition in Cortical Conditioned Reflexes. <i>Morrell, F., and Ross, M. H.</i>		611
Statistical Control Studies in Neurology. <i>Savitsky, N., and Madonick, M. J.</i>		617
The Ciliospinal Reflex in Injuries of the Cervical Spinal Cord in Man. <i>Arieff, A. J., and Pyzik, S. W.</i>		621
*Hallucinations in Braille. <i>Freeman, W., and Williams, J. M.</i>		630
*Effect of Carbon Tetrachloride on the Nervous System. <i>Stevens, H., and Forster, F. M.</i>		635
Factors Influencing Extensor Tonus and Respiration in Decerebrate Cats. <i>Hagaman, W. D., jun., and Beals, R. L.</i>		650

Studies on Headache

Cranial-artery pulse waves were recorded two to five times a week from 75 migraine subjects. More than 5,000 samples were assembled of cranial-artery pulse-wave tracings taken at various intervals prior to, during, and after migraine headache attacks. Seventy-two cranial-artery pulse-wave records were also obtained from 10 subjects who seldom or never had had headache and who did not have headache during the three months' period of observation.

One hundred consecutive right-temporal-artery pulse waves recorded from each of 10 headache-free migraine subjects were measured and compared with similar records obtained from 10 subjects who never had headache. From the data the following conclusions were drawn:

1. The caliber of the temporal artery was significantly larger in the headache-free migraine group than in the non-headache group. Also, the caliber during the headache attack was larger than that during the headache-free period, and much larger than that in the non-headache subjects.
2. The migraine group, as contrasted with the non-headache group, exhibited greater variability of the contractile state of the observed vascular bed.
3. In the migraine group the characteristic variability of the temporal-artery pulse-wave contours became more striking about 72 hours prior to the onset of headache and was maximal at the height of the headache attack.
4. The pulse-wave contour changes associated with the headache attack merely punctuated a more or less continuous physiological process and may be viewed as part of the life adjustment of these persons.

(Authors' Abstr.)

Factors that Influence Prognosis in Acute Focal Cerebrovascular Lesions

A study was made of 223 patients who had acute focal cerebrovascular lesions and who were observed at the Mayo Clinic during a period of two years. Of the entire group of patients, 82.5 per cent. had cerebral infarction without embolism, 10.8 per cent. had cerebral embolism accompanied by infarction, and 6.7 per cent. had focal intracerebral hemorrhage.

Factors that influenced the prognosis in these patients were age; existence of hypertension or cardiac disease or both; speed of onset of the symptoms, and whether the lesion was simple infarction, embolism, or hemorrhage.

Injection of procaine into the stellate ganglion did not appear to influence the prognosis.
(Authors' Abstr.)

Some Relationships of Intelligence, Mental Efficiency, Mental Deterioration and Disease

There were marked mean age differences among the various disease groups.

There also were differences among the disease groups in the amount of education completed.

A rank-order coefficient of correlation between age and education of -0.73 indicated that the younger disease groups tended to have more education than the older disease groups.

The mean I.Q.s of nine disease groups and a total hospital group of 668 patients were determined. The mean I.Q. for the total group was 109.0.

A rank-order coefficient of correlation of -0.45 between intelligence and age indicated that the younger disease groups tended to have the higher mean I.Q.s.

A rank-order coefficient of correlation of 0.73 between intelligence and years of schooling completed indicated that the disease groups with the higher mean I.Q.s tended to have the most schooling.

Differences in mean intelligence were found among the various disease groups tested. Fifteen differences in mean I.Q. among the various disease groups were statistically significant at the 5 per cent. and higher levels of confidence.

The postpoliomyelitis, psychoneurosis, and tuberculosis groups had the highest mean I.Q.s, while the amputation, orthopedic, and ulcer groups had the lowest mean I.Q.s.

A separate analysis of approximately 500 test scores on the California Mental Maturity test was made of all the groups studied.

Percentages of mental efficiency and mental deterioration were determined for each of the disease groups. Three disease groups—arthritis, psychoneurosis, and ulcer—had more than 10 per cent. mental deterioration, suggesting the presence of significant organic damage or disorganization.

A rank-order coefficient of correlation between intelligence and mental deterioration was -0.65 , which indicated that the groups with the lower mean I.Q.s tended to have more mental deterioration.

A rank-order coefficient of correlation of 0.27 between mental deterioration and age was found and a coefficient of 0.12 between mental deterioration and years of schooling was found.

It was concluded that persons with psychoneurosis and tuberculosis who also have high intelligence are more likely to seek and obtain prolonged treatment. There was no evidence that high intelligence leads to tuberculosis or psychoneurosis. There was some evidence that poliomyelitis patients of high intelligence tend to overwork and become excessively fatigued. Such a condition may be a factor leading to poliomyelitis infection.

Jobs requiring hard physical work and danger are often held by men with low I.Q.s and little schooling. Such men are more prone to have accidents. Low I.Q.s together with the elements of hard labor and danger, may be factors in creating accidents which lead to amputation and orthopedic disabilities.

(Author's Abstr.)

Pituitary-Adrenal Cortex Reactivity in Schizophrenic Patients

A review of the controversy about the reactivity of the pituitary-adrenal cortex system in schizophrenic patients is presented.

The project reported here—set up for statistical evaluation of this reactivity—is outlined.

The results of this investigation would tend to add weight to the conclusion that the reactivity is not impaired in schizophrenia.

It is confirmed that a number of nonspecific stress factors influence the level of pituitary-adrenal cortex activity.

The presence of false-negative responses in any evaluation of the pituitary-adrenal cortex system is emphasized.

Fasting and bed rest do not appear to have an important influence on the activity of this system.

Epinephrine in large doses loses its specificity.

Speculation about the refractoriness of the pituitary-adrenal cortex system is offered.

Electroshock therapy, both convulsive and subconvulsive, exercises a specific influence on the pituitary-adrenal cortex system.

Relative eosinophilia in schizophrenic patients was again found in this population, as has been reported by other authors.

(Author's Abstr.)

Hallucinations in Braille

The case is reported of a young woman who, many years after the onset of blindness, had a schizophrenic reaction with hallucinations of hearing and of seeing. The visions were predominantly in braille. The hallucinations disappeared immediately after unilateral amygdaloidectomy. Suggestions are made as to the motor component of hallucinations and their similarity to the sonar mechanism employed by Cetacea and Chiroptera for the purpose of orientation.

(Authors' Abstr.)

Effect of Carbon Tetrachloride on the Nervous System

Carbon tetrachloride is a common household article whose danger as a potentially lethal intoxicant has not been advertised sufficiently. Labeling of the container should be similar to that for other poisons, and the public should be educated regarding the deadly potency of the fluid. A single exposure can be fatal.

Alcohol imbibed during exposure greatly increases the toxicity of carbon tetrachloride, a fact that should also be better known.

Acute carbon tetrachloride poisoning is dominated by symptoms of the central nervous system, such as headache, diplopia, incoordination, paresthesias, impaired vision, confusion, and coma.

An etiological classification is tabulated.

Reports of neurological aspects of carbon tetrachloride intoxication are extremely meager, incomplete, and scattered.

A total of 15 cases of carbon tetrachloride poisoning are reported and typical ones cited. Neuropathological findings are described, and the literature is reviewed.

(Authors' Abstr.)

DECEMBER

*Hippocampal Seizures and their Propagation. <i>Green, J. D., and Shimamoto, T.</i> ..	687
*Figure-Ground Discrimination and the "Abstract Attitude" in Patients with Cerebral Neoplasms. <i>Battersby, W. S., et al.</i> ..	703
Reflexes in Insulin Coma. <i>Kral, V. A., and Smith, C. C.</i> ..	713
Aneurysm of the Posterior Communicating Artery. <i>Madow, L., and Alpers, B. J.</i> ..	722
Genetic Aspects of Multiple Sclerosis. <i>Muller, R.</i> ..	733
*Syringomyelia. <i>Netsky, M. G.</i> ..	741
*Autonomic Responses in Differential Diagnosis of Organic and Psychogenic Psychoses. <i>Reese, W. G., et al.</i> ..	778
Cold Pressor Test in Functional Psychiatric Syndromes. <i>Igersheimer, W. W.</i> ..	794
*Eosinophilic Response in Schizophrenic Patients. <i>Stevenson, J. A. F., et al.</i> ..	802
Spinal Cord Compression Studies. <i>Tarlov, I. M., et al.</i> ..	813

Hippocampal Seizures and Their Propagation

Weak electrical or mechanical stimulation of the fimbria hippocampi in cats induces motor fits and electrical discharges with characteristics having some similarity to those of psychomotor epilepsy. These discharges are not propagated through the fornix but spread through the commissural fibers of the psalterium to the temporal lobe and other parts of the cerebrum. The thalamus and hypothalamus are not essential in this propagation.

(Authors' Abstr.)

Figure-Ground Discrimination and the "Abstract Attitude" in Patients with Cerebral Neoplasms

Forty patients with neoplasms of the cerebral hemispheres were tested on a modification of Gottschaldt's figure-ground visual discrimination, a Weigl type of sorting test, and the Wechsler-Bellevue Form 1. Twenty-four patients with either increased intracranial pressure of unknown origin or spinal cord tumors were used as control subjects. Results show that the group of patients with hemispheric lesions were significantly inferior in their performance on all tests to the control group. Individual patients, with or without cerebral damage, varied within wide limits on all the tests precluding any simple interpretation of a qualitative change in performance after a brain lesion. No significant differences between patients with pre- or post-Rolandic lesions could be found. These results indicate that "intellectual" deficits may be produced by lesions in any portion of the cerebral hemispheres, and not chiefly by frontal lobe involvement, as some authorities are still claiming. More adequate testing methods are needed to aid in the definition and solution of the problem of intellectual functioning and brain injury.

(Authors' Abstr.)

Syringomyelia

Eight cases of syringomyelia are presented with necropsy. Some patients were observed for as long as 20 years. The course frequently is stormy for a few months or years, and the disease then becomes quiescent or only slowly progressive. Intramedullary neoplasms of the spinal cord constitute the chief diagnostic difficulty. Many types of sensory dissociation may be encountered in syringomyelia. In addition to the commonplace loss of pain and temperature sensation with preservation of touch; heat and cold sensation, pain and temperature sensibility, and vibratory and position sensation may be dissociated. There was loss of vibratory sensation with intact position sense early in the course in six of eight cases. Evidence is presented to show that palloesthetic fibers may not be situated in the posterior columns, but, rather, may lie in the medial portion of the lateral columns.

Treatment of the disease is wholly unsatisfactory. There have been no controlled experiments to determine the value of X-ray therapy or of surgery. The symptomatic improvement occasionally obtained may well be psychogenic. X-ray therapy lacks a rationale and, indeed, may be harmful.

It is shown that the central canal of the adult cord frequently is the site of a disorderly proliferation of ependyma. This contrasts with the single layer of epithelium found in the infant. It is concluded that such ependymal proliferation is an acquired variant rather than a congenital rest. Current ideas of the pathogenesis of syringomyelia are discussed, and a general theory of the pathogenesis of the disease is offered. This theory relates the developmental origin of the disease to anomalies of the intramedullary blood supply. When the patients reach adult life, vascular insufficiency and occlusions lead to cavitation, gliosis, and fibrosis. The theory is considered in relation to, and accords satisfactorily with, the clinical data, the location of the lesion, the pathologic findings, and the common association of this disorder with intramedullary hemangioblastomas.

(Author's Abstr.)

Autonomic Responses in Differential Diagnosis of Organic and Psychogenic Psychoses

Patients with cerebral damage show striking inability to learn conditional responses, which normal subjects learn regularly and promptly.

The patients, who had severe, diffuse cortical impairment, uniformly failed (within 6 to 23 reinforced stimulations) to establish discriminative conditional responses to visual stimuli associated with a slightly painful electrical stimulus. The types of reaction which were recorded include skin resistance, respiratory movements, heart rate, spontaneous and integrated motor movements (tremors and gross movements), and verbal formulation. In none of these forms of behavior did the brain-damaged patients show any formation of conditional responses. This is in marked contrast to responses of the normal subjects, who, after two to seven reinforcements, invariably showed evidence of conditioning. In the normal, the evidence of conditional response formation was always present with integrated motor responses and in verbal formulation, and usually in the psychogalvanic reflex.

In the human subject, changes in heart rate in relation to conditional reflex formation are much less marked than in comparable experiments on dogs. Clarification of this difference awaits more refined study.

(Authors' Abstr.)

Eosinophile Response in Schizophrenic Patients

The changes in level of circulating eosinophiles in both morning and afternoon control periods and in response to epinephrine (0.3 mg. given subcutaneously) and to corticotropin (25 mg. intramuscularly) were determined in 30 men hospitalized for schizophrenia an average of 8.5 years.

The mean changes in eosinophile level observed in the control periods reflect the diurnal cycle of eosinophile level previously described. The mean relative decreases in eosinophiles following administration of epinephrine or corticotropin were less in the afternoon than in the morning. The relative amount of fall apparently depends upon the coincident direction of the spontaneous diurnal cycle as well as upon the health of the adrenocortical system.

The number of schizophrenics showing a fall of 50 per cent. or greater to epinephrine (13/30) or to corticotropin (18/30) in the morning was smaller than would be expected in a group of healthy men.

Of the 30 schizophrenics, 11 had been classified as catatonic and 12 as paranoid. The results in these two groups showed distinct differences.

The catatonics showed relatively normal responses to epinephrine and corticotropin but decreases greater than normal on the control morning. The paranoids produced significantly smaller responses to epinephrine and corticotropin but normal eosinophile changes in the control periods.

The mean absolute level of circulating eosinophiles in the catatonics was similar to that in normals, whereas that of the paranoids was twice as high.

It is concluded that these eosinophile studies provide presumptive evidence that the adrenocortical system is hyporeactive and hyporeactive in the paranoid schizophrenic and perhaps hyperreactive in the catatonic schizophrenic. This may explain the conflicting reports on adrenocortical function in schizophrenia.

(Authors' Abstr.)

VOL. 71 JANUARY 1954

Conduction of Pain in Man. *White, J. C.* 1
 The Initial Interview. *Hendrickson, W. J., et al.* 24
 Chronic Progressive External Ophthalmoplegia. *Schwarz, G. A., and Lin, C.-N.* 31
 *Isoniazid in Treatment of the Chronic Schizophrenic Patient. *Bennett, I. F., et al.* 54
 Pathological Changes in Neurons, Neuroglia and Blood-brain Barrier Induced by X-Irradiation of Heads of Monkeys. *Clemente, C. D., and Holst, E. A.* 66
 Effect of Atropine on Blood Pressure of Patients with Mental and Emotional Disease. *Hoffer, A.* 80
 Role of Intrathecal Detergents in Pathogenesis of Adhesive Arachnoiditis. *Paddison, R. M., and Alpers, B. J.* 87
 Evaluation of Seizures in the Adult. *Martin, H. L., and McDowell, F.* 101
 Complications Following Cerebral Angiography. *Perese, D. M., et al.* 105
 Creatine Metabolism in Paralyzes due to Various Causes, Especially Injuries to the Spinal Cord. *Pollock, L. J., et al.* 116
 Succinylcholine Chloride in Electroshock Therapy. *Wilson, W. P., and Nowill, W. K.* 122

VOL. 14 ARCH. PSICOL. NEUR. PSICHIAT. 1953

Light and Colour in the Phenomena of "Simultaneous Contrast, Constancy and Assimilation". *Musatti, C. L.* 541
 Alternating Personality and Affective Pathology. *Morselli, G. E.* 579
 The Wechsler-Bellevue Test of Normal Aged Subjects. *Maleci, O., and Montanari, M.* 591
 Phenomenological Analysis of Schizophrenic Absurdity in its Relation to Surrealist Art. *Gaetano, R.* 605
 The Importance of the Study of the Statistical Adaptation Reactions and Counter-Reactions in Human Psychomotor Development. *Tronconi, V.* 639
 The Validation of a Character Diagnosis. *Kanitzsa, G.* 651
 Further Contributions to the EEG Study of the Cerebral Abscess. *Sanguinetti, I.* 675
 The Prevention of Train-drivers' Psycho-physical Fatigue Through the Provision of Coramine-Glucose. *Caprini, G., and Melotti, V.* 715

VOL. 18 ARQ. DEP. ASSIST. PSICOPAT., SÃO PAULO 1953

The Neuropathology of Mental Deficiency in Relation to Nutritive Deficiencies. *Maffei, W. E.* 5
 Electronarcosis. *Mathias, I.* 17
 The Conception of Neuroses. *Fraletti, P.* 25
 The Planning of a Psychiatric Hospital Service. *Tavares, H. N.* 51
 Where is Mental Hygiene? *Vizzotto, S.* 69

VOL. 31 AUSTR. J. EX. BIOL. M. SC. 1953

Insulin Tolerance and Hypoglycaemic Convulsions in Sheep. *Jarrett, I. G., and Potter, B. J.* 311

B. M. J. 1953 (2)

Rapid Method for Detection of Barbiturates in Urine and Stomach Contents. *Marshall, R.* 379
 Value of Primidone in Epilepsy. *Whitty, C. W. M.* 540
 Ten Years' Clinical Experience of Modified Leucotomy Operations. *Sargant, W.* 800

VOL. 24 BR. J. EDUC. PSYCHOL. 1954

Symposium on the Effects of Coaching and Practice in Intelligence Tests. III. *Dempster, J. J. B.* 1
 Symposium on the Effects of Coaching and Practice in Intelligence Tests. IV. *Wiseman, S.* 5
 The Permanent Contribution of Francis Galton to Psychology. *Peel, E. A.* 9
 The Difficulties of Training College Students in Understanding what they Read. *Black, E. L.* 17
 The Effect of a University Training in Mathematics on Scores in an Intelligence Test. *Watts, K. P.* 32
 Developments in Written Composition during the Primary School Period. *Ford, C. T.* 38

VOL. 4 BR. J. DELINQ. JANUARY, 1954

A Symposium on the Report of the Royal Commission on Capital Punishment.
 1. Legal Aspects. *Gardiner, G.* 158
 2. Psychiatric Aspects. *Glover, E.* 162
 3. Concluding Remarks. *Mannheim, H.* 168
 Team-Research on Delinquency. *Glover, E.* 173
 Some Clinical Types in an Approved School. *Taylor, S. H.* 189

768	BIBLIOGRAPHY AND EPITOME	[July
VOL. 40	BR. J. SURG.	1953
	Casts of Cerebral Ventricles. <i>Last, R. J., and Tompsett, D. H.</i>	525
VOL. 41		
	Ventriculographic Changes in Cysticercosis of Brain. <i>Reddy, D. G., and Ramamurthy, B.</i> ..	11
VOL. 76	BRAIN	1953
	Disturbances of Visual Perception and their Examination. <i>Bay, E.</i>	515
	The Cerebral Lipids in Disseminated Sclerosis and in Amaurotic Family Idiocy. <i>Cummings, J. N.</i>	551
	Necrosis of the Spinal Cord due to Thrombophlebitis. <i>Mair, W. G. P., and Folkerts, J. F.</i>	563
	The Neurological Importance of Tumours of the Glomus Jugulare. <i>Bickerstaff, E. R., and Howell, J. S.</i>	576
	Diabetic Neuropathy. <i>Martin, M. M.</i>	594
	The "Association Cortex" of <i>Macaca Mulatta</i> . <i>Chow, K. L., and Hutt, P. J.</i>	625
VOL. 79	CALIF. MED.	1953
	Anoxemia and Brain Disease. <i>Courville, C. B.</i>	214
VOL. 69	CAN. M. A. J.	1953
	Physiological Factors Underlying Therapeutic Success in Mental Disorders. <i>Doust, J. W. L.</i>	108
	Studies in Lobotomy. <i>Karp, D., and Leafeld, A. H.</i>	387
	Behaviour Problems in Children. <i>Williamson, P.</i>	412
VOL. 6	CANCER, PHIL.	1953
	Psychological Impact of Cancer and Cancer Surgery. <i>Sutherland, A. M., and Orbach, C. E.</i>	958
VOL. 29	CERVELLO	1953
	Electroshock and Cerebral Tumour. <i>Fattovich, G.</i>	409
	The Part Played in Histochemical Research by Some Esterases in Wallerian Degeneration of Nerve. <i>Della Beffa, A.</i>	419
	Mongolism and Maternal-foetal Rhesus Incompatibility. <i>Luzzatto, A., and G. B.</i> ..	439
	A Contribution to the Knowledge of Hereditary Nystagmus. <i>Renda, V., and Vegro, G. R.</i>	459
	Levulose in the Treatment of Alcoholism. <i>Poloni, A.</i>	471
VOL. 30		1954
	Pick's Disease. <i>Fattovich, G.</i>	1
	The Pathogenesis of Acrocephalosyndactyly. <i>Sciorta, A.</i>	27
	The Haematology of Insulin-Shock Coma. <i>Corradini, E.</i>	57
	Considerations and Experience in the Field of Psychosomatic Medicine. <i>Petro, C.</i> ..	77
VOL. 17	COUN. S. M. J.	1953
	Carotid Body Tumor in Mentally Sick Patient. <i>Pierson, H.</i>	741
	Partial Agenesis of Corpus Callosum with Parencephaly. <i>Greenblatt, J., and Anderson, C.</i>	824
	Re-education—Method of Psychiatric Rehabilitation. <i>Terhune, W. B.</i>	828
VOL. 25	DELAWARE S. MED. J.	1953
	Recognition of Psychiatric Approach to Criminals by Delaware Courts. <i>Tarumianz, M. A.</i>	173
	Clinical Experiences with Transorbital Leucotomy. <i>Freyhan, F. R.</i>	200
	Prison—Valuable Adjunct in Psychotherapy of Character Disorders. <i>Howard, H. S.</i> ..	203
	Involuntional Psychosis. <i>Gottschall, A. W.</i>	208
	Psychiatric Consultation on Medical and Surgical Service. <i>De Cherney, H. G.</i> ..	212
	Group Psychotherapy. <i>Bryne, W. A.</i>	214
	Treatment and Prognosis of Alcoholism. <i>Lederer, H. E.</i>	221
	Psychosomatic Illness. <i>Turner, C. P.</i>	226
VOL. 78	DEUT. MED. WO.	1953
	Treatment of Neurosyphilis with Penicillin. <i>Dammann, H. J., and Schmidt, E.</i> ..	1231
VOL. 14	DIS. NERV. SYST.	1953
	How Long was Roosevelt III Before his Death. <i>Eliasberg, W. G.</i>	323
	Aspiration in ECT. <i>Kahn, E.</i>	328
	EEG Survey of a Mental Hospital. <i>Revitch, E., and Luzzi, M.</i>	331
	The EEG in the Post-traumatic Headache Syndrome. <i>Schuleman, I. H.</i>	335

Psychomotor Epilepsy in Children. <i>Robertiello, R. C.</i>	337
The Understanding of Psychic Masochism. <i>Bergler, E.</i>	340
Clinical Conference on Paraplegia	342
Review of Encephalograms Done Over a Five-year Period. <i>Schuleman, I. H.</i>	355
Poliomyelitis in California. <i>Stelle, P.</i>	366
Effect of L(+) Glutamic Acid on Mental Growth. <i>Jaeger-Lee, D. S., et al.</i>	368
A Neurotic Index. <i>Jackman, A. I.</i>	375
A Clinical Report on the Palm-chin Reflex. <i>McLaughlin, J. J., and Haines, W. H.</i>	381

VOL. 13 EDUC. PSYCHOL. MEASMT. 1953

The Relation of Test Score to the Trait Underlying the Test. <i>Lord, F. M.</i>	517
Response Patterns in a Test of Logical Inference. <i>Gaier, E. L., et al.</i>	550
Psychological Testing in West Germany. <i>Froehlich, C. P.</i>	568
Some Modifications of the Multiple-Choice Item. <i>Dressel, P. L., and Schmid, J.</i>	574
A Note on a Spatial Relations Pre-test and Post-test. <i>Myers, C. T.</i>	596
Errors in Estimates of Item Difficulty Obtained from Use of Extreme Groups on a Criterion Variable. <i>Michael, W. B., et al.</i>	601
The Effect of Changed Directions on the Attitudes about Old Peoples and the Older Worker. <i>Tuckman, J., and Lorge, I.</i>	607
Patterns for Rating Learning Products. <i>Simpson, R. H.</i>	614
Social Desirability as a Variable in 2 Technique Studies. <i>Edwards, A. L., and Horst, P.</i>	620
An Investigation of the Relation of Student Ratings of Psychology Instructors to their Course Achievement when Academic Aptitude is Controlled. <i>Russell, H. E., and Bendig, A. W.</i>	626
Kinaesthetic Recognition in Retarded Readers. <i>French, E. L.</i>	636
Multiple Correlation for Four Predictors Using Zero-order Co-efficients Alone. <i>Perloff, R.</i>	655
Predictors of Freshman Grades in a Southern University. <i>Webb, S. C., and McCall, J. N.</i>	660

VOL. 5 EEG CLIN. NEUROPHYSIOL. 1953

The Estimation of Hearing Threshold by EEG. <i>Perl, E. R., et al.</i>	501
EEG Studies of Patients with Peptic Ulcer and Functional Gastric Disorders. <i>Kirschbaum, W. R., and Stehle, H. C.</i>	513
Electrical Activity of the Brain in Acute Oxygen Poisoning. <i>Sonnenschein, R. R., and Stein, S. N.</i>	521
*An EEG Study of Barbiturate Anesthesia. <i>Shimazono, Y., et al.</i>	525
A Comparative Study of the EEGs of Normal Africans and Europeans of Southern Africa. <i>Mundy-Castle, A. C., et al.</i>	533
*The EEG Effect of Metrazol and Photic Stimulation in 682 Normal Subjects. <i>Buchthal, F., and Lennox, M.</i>	545
Some Experiments on the Perception of Patterns Modulated at the Alpha Frequency. <i>Mackay, D. M.</i>	559
*Some Cerebellar Effects on the Electrococtigram. <i>Cooke, P. M., and Snider, R. S.</i>	563
Reticular Discharges Induced by Polarisation of the Brain. <i>Mollica, A., et al.</i>	571
Convulsive Activity and Electrical Silence in the Cerebellar Cortex. <i>Mollica, A., and Naquet, R.</i>	585
Muscle Action Potentials in Experimental Peripheral Nerve Pareses. <i>Pinelli, P., and Buchthal, F.</i>	589
The Electrical Activity of the Muscles of the Eye and Eyelids in Various Positions and During Movement. <i>Björk, A. and Kugelberg, E.</i>	595

An Electroencephalographic Study of Barbiturate Anesthesia

1. A series of changes in the EEG brought about by intravenous injection of sodium amyl were described.

2. The characteristic fast waves caused by intravenous injection of sodium amyl were roughly classified into FA of about 15 c/sec. and of relatively large amplitude, and FB of relatively small amplitude, the frequency of which is around 25 c/sec. or over.

3. When a stimulus is applied in a stage of anesthesia, especially during emergence from anesthesia, there appears a EEG pattern which would correspond to a more light stage of anesthesia. At that time the behavior shown by FA and FB seems to be analogous to the behavior of alpha and beta waves at the time of non-anesthetized case (awaking period and during natural sleep).

4. In instances where slow waves are present before anesthesia, the slow waves appear in response to stimulation at the time when anesthetized normal subjects show alpha waves or FA.

5. No fast waves can be elicited by administration of sodium amyl in certain stages of insulin hypoglycemia, immediately after electrically induced convulsions and in deep anesthesia etc., when the brain function is disturbed above a certain degree. As the functional stage of the brain recovers due to administration of glucose or spontaneously with the lapse of time the fast waves which could not be seen before appear very clearly. (Authors' Abstr.)

The EEG Effect of Metrazol and Photic Stimulation in 682 Normal Subjects

This paper describes some exploratory experiments, designed to test certain aspects of the well-known hypothesis that "scanning" of the visual field takes place at the frequency of the alpha rhythm. A rectilinear pattern was produced electronically on an 18-inch C-R tube screen, and modulated rhythmically in size at frequencies between 2 and 30 per sec. No "stroboscopic" effects, such as might have been expected on the scanning hypothesis, were observed by the subjects tested.

In later experiments the subject's EEG was simultaneously recorded, and a simple correlator used to indicate the phase-relation between the size-modulation and the dominant component of the occipital and other potentials. With the eyes open no significant correlation was observed even when the occipital EEG was fed back to control the brightness of the modulated pattern.

Although the results cannot be said to disprove the scanning hypothesis, they appear to circumscribe the role attributable to the alpha rhythm in such speculations.

(Authors' Abstr.)

Some Cerebellar Effects on the Electrocardiogram

The present study was made on cats maintained under d-tubocurare or di-hydro-beta erythroidin.

1. Cerebellar stimulation can alter the electrical activity of both sensory and motor areas of the cerebrum.

2. Changes in cerebral activity following cerebellar stimulation usually indicate more pronounced "activation" patterns; rarely, slow waves and spindles follow such stimulations.

3. Localized areas of the cerebellum can influence localized cerebral areas.

4. Possible relationships of the cerebellum to the diffuse activating system is discussed.

(Authors' Abstr.)

VOL. 42	ENCEPH.	1953
Biological Research on Emotional Shock. <i>Delay, J., et al.</i>		289
Treatment of Motor and Vesical Sequelae of Medullary Injuries. <i>Fierro, J., and Poblete, R.</i>		320
A Singular Case of "Specular Phantom". <i>Conrad, K.</i>		338
A Contribution to the Study of Homeostasis in Schizophrenia and Other Psychoses. <i>Delay, J., et al.</i>		385
The Differential Effect of Anti-epileptic Drugs on the Coma and Tonic and Clonic Phases of Experimental Electrolysis. <i>Frommel, E., et al.</i>		407
Acute Confusion, Neuro-toxicosis, Malignant Syndrome and Syndrome of Irritation. <i>Golse, J., and Morel</i>		422
Neurosis Considered as a Conditioned Reflex <i>sui generis</i> . <i>Stocker, A.</i>		455
Localised Tactile Agnosia. <i>Weill, B., and Hecaen, H.</i>		481
Post-concussion Korsakoff's Syndrome with Initial Meso-diencephalic Dysrhythmia. <i>Alliez, J., et al.</i>		500
A New Outlook on Cerebral Anatomophysiology. <i>Lhermitte, J.</i>		508
Variations in the Capacity of the Cerebral Ventricles. <i>Weintraub, W.</i>		521

VOL. 53	ENDOCRIN.	1953
Effects of Hypothalamic Lesions and Subsequent Propylthiouracil Treatment on Pituitary. <i>Bogdanore, E. M., and Halnn, N. S.</i>		274

VOL. 24	EVOL. PSYCHIAT.	1953
Global Comprehension in Psychotherapy. <i>Amado, G.</i>		577
Physiogenesis and Psychogenesis of Convulsive States. <i>Krapf, E.</i>		607
Psychotherapies of Psychoanalytic Orientation. <i>Racamier, P. C.</i>		623
Hypertthyroidism in Psychiatry. <i>Bofill, P.</i>		657

VOL. 56	FOL. PSYCHIAT. NEUR. NEUROCHIR. NEERL.	AUGUST, 1953
Inflammatory Changes in the Epidural Adipose Tissue. <i>Antoni, N.</i>		407
A Case of Partial Continuous Epilepsy with an Anatomical Examination. <i>Biemond, A.</i>		414
An Amaurotic Idiocy of Precocious Infantile Type, etc. <i>van Bogaert, L.</i>		419
Duration of Electric Reaction Following Electric Stimulation of Some Areas of the Rabbit's Cerebral Cortex. <i>Bok, S. T.</i>		425
On the Mechanism of the Otoliths. <i>Braak, J. W. G.</i>		429
The Action of Strychnine on the Sensory Responses and on the Spontaneous Electrical Potentials of the Cerebellar Cortex. <i>Bremer, F., and Bonnet, V.</i>		438
Influence of the Cerebral Circulation on the EEG. <i>ten Cate, J., and Horsten, G. P. M.</i>		447
A Note on Intension-tremor. <i>Droogleever, Fortuyn, J.</i>		451
Note on the History of the Postural Reflexes. <i>Fulton, J. F.</i>		455
Ischemic Paralysis of the Sciatic Following a Transitory Arterial Obliteration. <i>Garcin, R. M. M., and Godlewski, S.</i>		460
The Diagnosis and Treatment of Medullary Compressions by Cervical Hernia. <i>van Gehuchten, P.</i>		468

A Case of Guillain Barré Type of Polyneuritis. <i>Hoelen, E.</i>	475
Observations on Vital Staining of the Axons of Myelinated Fibers. <i>Lorente de Nó, R.</i>	479
Canalography as a Diagnostic Aid in a Case of Compression of the Cauda Equina. <i>Luyendyk, W.</i>	488
On a Case of Focal Epilepsy. <i>Magnus, O.</i>	491
On Chronic Polymyositis and Arachnodactyly. <i>Sillevis Smitt, W. G., and Mort van Spyk, D.</i>	496
Contributions to the Study of the Function of the Brain. <i>Stenvers, H. W.</i>	514
Some Ways in which EEG Changes may be Produced by Photic Stimulation. <i>Storm van Leeuwen, W., and Kok, L.</i>	519
EEG and Clinical Findings in a Group of Low Grade Oligophrenics. <i>Stotyn, C. P. J.</i>	525
Muscular Extensibility. <i>André-Thomas</i>	539
The Arnold-Chiari Malformation in Adults Without Concomitant Anomalies of the Skull or the Vertebral Column. <i>Verbiest, H.</i>	544
Abnormalities of the Cord in a Cat with a Cerebellar and Cerebral Cortical Hypo- plasia. <i>Verhaart, W. J. C.</i>	552
Neurophysiology and Aviation Medicine. <i>van Wulfften Palthe, P. M.</i>	557

OCTOBER

Gravid Myelitis. <i>Biamond, A.</i>	580
The Development of Psychosomatic Medicine in the United States. <i>Binger, C.</i>	586
Organ Psychosis. <i>Boon, A. A.</i>	602
The Lipoidoses. <i>Booy, J.</i>	614
The Response of Schizophrenic Patients to Comic Cartoons. <i>Brody, E. B., and Redlich, F. C.</i>	623
A Significant Testimony. <i>Christ, J.</i>	641
The Pathogenesis of Glioma and the Problem of its Malignity. <i>van Dam, R.</i>	648
Anthropological Reflections and Therapeutical Methods in Mental Hospitals. <i>van der Drift, H.</i>	658
Recent Developments of Experimental Techniques in General and Social Psychology. <i>Duyker, H. C. J.</i>	676
Encephalitis with Epilepsy and Myoclonus. <i>Folkerts, J. F.</i>	685
Bourdon-Wiersma's Test. <i>Grewel, F.</i>	694
Psychosomatics, Psychiatry and Medicine. <i>Groen, J.</i>	704
Epileptic Anamnesis. <i>Hill, D., and Mitchell, W.</i>	718
On Integration. <i>Hugenholtz, P. Th.</i>	736
Changes of Diagnosis with Special Reference to Schizophrenia. <i>Janse de Jonge, A. L.</i>	755
Some Considerations Regarding the Clinical-Psychological Examination of Paranoid States. <i>Lenep, J. E.</i>	769
Research in Occupational Psychiatry. <i>Lewis, A.</i>	779
The Plasticity of Neurosis. <i>Lopez Ibor, J.</i>	787
The Treatment of Acute Barbiturate Poisoning. <i>Marsman, W.</i>	795
Compensation in Psychopathology. <i>Minkowski, E.</i>	805
Neuritis of the Femoral Nerve. <i>Moffie, D.</i>	813
The Evil Eye. <i>Ploegsma, W.</i>	821
The Clinical, Pathological-Anatomical and Pathophysiological Aspects of the Cushing Syndrome. <i>Prick, J. J. G.</i>	829
Manganese Encephalopathy. <i>Scholten, J. M.</i>	878
Pathological Laughing. <i>Sillevis Smitt, W. G., and van 't Hooft, F.</i>	885
Habitual Swindlers. <i>Tammenours Bakker, S. P.</i>	900
The General Significance of the Film for Psychiatry. <i>Tolsma, F. J.</i>	907

DECEMBER

The Anatomy of the Pyramidal Tract. <i>Verhaart, W. J. C.</i>	923
Clinical Features of Pyramidal and Extra-pyramidal Disorders. <i>Stenvers, H. W.</i>	943
Surgery of the Pyramidal-extrapyramidal System. <i>de Vet, A. C.</i>	966
Pharmacological Aspects of Newer Drugs for Parkinsonism. <i>de Jongh, D. K.</i>	993

VOL. 48 GENET. PSYCHOL. MONOGR. 1953

Age and Mental Abilities. <i>Owens, W. A.</i>	3
The Development of a Personality Questionnaire for Drinkers. <i>Hampton, P. J.</i>	55
Personality and Physical Disease. <i>Crowell, D. H.</i>	117
Socio-economic Contrasts in Children's Peer Culture Prestige Values. <i>Pope, B.</i>	157
A Critical Review of the Stability of Social Acceptability Scores Obtained with the Partial-Rank Order and the Paired-Comparison Scales. <i>Witryol, S. L., and Thompson, G. G.</i>	221
A Study of the Effects of Color on Rorschach Responses. <i>Brody, G. G.</i>	261

VOL. 8 GERIAT. 1953

Use of Piromen in Multiple Sclerosis. <i>Chesrow, E. J., et al.</i>	504
Personality Reaction to ACTH and Related Substance. <i>Draper, P. A.</i>	557

VOL. 34	GIORN. CLIN. MED.	1953
Psychic Syndromes in Basedow's Disease and Thyroidectomy. <i>Rossini, R., and Dazzi, P.</i>		1018
VOL. 8	G. P.	1953
Group Learning of Psychosomatic Medicine. <i>Jones, B. C., jun.</i>		61
Management of Convulsive Disorders. <i>Pfeiffer, J. B., jun.</i>		71
VOL. 104	ILLINOIS M. J.	1953
Preventry Psychiatry for the Physician. <i>Caldwell, J. M.</i>		236
Social and Psychological Factors in Breakdown of Displaced Persons. <i>Fenyés, G.</i>		260
VOL. 4	IND. J. NEUR. PSYCHIAT.	1953
Future of Psychiatry in India. <i>Bhagwat, G. A.</i>		1
Tetra-ethyl Lead Poisoning. <i>Pires, P. R.</i>		9
History of Psychiatry in India and Pakistan. <i>Varma, L. P.</i>		26
Insulin Subshock Treatment. <i>Vahia, N. S.</i>		54
Academic Deterioration in Pre-Schizophrenic State. <i>Nandi, D. N.</i>		65
VOL. 34	INTERNAT. J. PSYCHO-ANAL.	1953
Understanding the Paradox of Japanese Psychoanalysis. <i>Moloney, J. C.</i>		291
Defensive Aspects of Orality. <i>Friedman, L. J.</i>		304
A Contribution to the Problem of Counter-Transference. <i>Racker, H.</i>		313
The Lure of the Forbidden. <i>Servadio, E.</i>		325
VOL. 43	IOWA ST. M. S. J.	1953
Psychiatric Aspects of Geriatrics. <i>Malamud, W.</i>		461
VOL. 1	J. AM. GERIAT. SOC.	1953
Fear in Elderly People. <i>Williamson, P.</i>		739
VOL. 153	J. A. M. A.	1953
Pharmacological Treatment of Aged Patients in a State Mental Hospital. <i>Levy, S.</i>		1260
VOL. 2	J. BRAS. PSIQUIAT.	1953
Some Aspects of Psychoanalysis of Schizophrenia. <i>Uchoa, D. M.</i>		113
Industrial Medicine in Brazil and the Problem of Human and Industrial Relations.		
<i>Lippmann, H. L.</i>		133
War Psychoses. <i>van der Horst, L.</i>		147
Intravenous Dilvasene. <i>de Souza, W., and Fessel, A. E.</i>		160
VOL. 10	J. CLIN. PSYCHOL.	JANUARY, 1954
Pattern Analysis and Configural Scoring. <i>Horst, P.</i>		3
A Factor Analysis of Curvilinear Distortions on the Bender-Gestalt. <i>Guertin, W. H.</i>		12
A Story Completion Test for College Students. <i>Mills, E. S.</i>		18
Personality Integration and the Perceptual Process. <i>Rubinstein, E. A.</i>		23
An Analysis of the Rationalization and Explanations of Test Behavior. <i>Shorr, J. E.</i>		29
A Quantitative Study of the HTP and its Relationship to the Wechsler-Bellevue Scale.		
<i>Rubin, H.</i>		35
The Use of Cartoons as a Projective Device. <i>Strother, G. B., et al.</i>		38
A Preliminary Report on a Technique Designed to Differentiate Patients with Cerebral Pathology and with Psychoneurosis. <i>Tolor, A.</i>		43
A Preliminary Study to Develop a More Discriminating F+ Ratio. <i>Feldman, M. J., et al.</i>		47
The Effects of Recent Perceptual Training and Experience on Rorschach Performance.		
<i>Knopf, I. J.</i>		52
Contributions to a Theory of Selecting Psychotherapy Patients. <i>Auld, J., jun., and Myers, J. K.</i>		56
A Study of Twelve-year-old Recidivists. <i>Wattenberg, W. W., and Quiroz, F.</i>		61
The Use of Drawings of the Human Figure as an Adjunct in Psychotherapy. <i>King, F. W.</i>		65
Self-Perceptions in Stuttering. <i>Zelen, S. L., et al.</i>		70
The Diagnostic Value of the Rorschach P-F Study. <i>Brown, R. L., and Lacey, O. L.</i>		72
Case Report on a Mental Hygiene Clinic Patient Tested Before and After Frontal Lobe Injury. <i>Rogers, L. S., and Taylor, J. W.</i>		75
Rorschach Pattern Analysis in Schizophrenia. <i>Taulbee, E. S., and Sisson, B. D.</i>		80
A Mechanical Short-cut for Computing Tetrachoric Correlations. <i>Sweetland, A., and Dreger, R. M.</i>		82
The Learning Plateau Seen as Resistance in Individual Remedial Teaching. <i>Gottsegen, M. G., and G. B.</i>		85

Concept Formation of Normal and Subnormal Adolescents on a Modification of the Weigl-Goldstein-Scheerer Color Form Sorting Test. <i>Korstredt, A., et al.</i> ..	88
Hidden Costs in the Utilization of the Psychiatrically Marginal Man. <i>Hunt, W. A., et al.</i> ..	91
Correlates of the Non-Committal Test-Item Response. <i>Rubin-Ratson, G.</i> ..	93
The Relationship Between Z Scores on the Bender-Gestalt and F+ % on the Rorschach. <i>Curnutt, R. H., and Lewis, W. B.</i> ..	96
Correlation of Clinical Estimates with Test Scores on Mental Ability and Personality Tests. <i>Wilson, J. W.</i> ..	97

VOL. 99

J. COMP. NEUR.

OCTOBER, 1953

Spino-pontine Fibers in the Cat. <i>Walberg, F., and Brodal, A.</i> ..	251
Vagal Preganglionic Fibers to the Alimentary Canal. <i>Mohiuddin, A.</i> ..	289
Innervation of Pineal Gland in Hooded Rat. <i>Gardner, J. H.</i> ..	319
The Persistence of Hyperneurotized End-plates in Mammalian Muscles. <i>Hoffman, H.</i>	331
*Further Analysis of the Temporal Lobe Syndrome Utilizing Frontotemporal Ablations. <i>Pribram, K. H., and Bagshaw, M.</i> ..	347
Nuclear Studies on the Thalamus of the Mouse. <i>Holmes, R. L.</i> ..	377
Some Observations on the Fiber Connections of the Di- and Mesencephalon in the Cat. <i>Bucher, V. M., and Burgi, S. M.</i> ..	415

Further Analysis of the Temporal Lobe Syndrome Utilizing Frontotemporal Ablations

1. Ten subjects, 1 adult male Chacma baboon, 1 adult female Guinea baboon and 8 immature rhesus macaques were used. One baboon and 5 macaques received extensive bilateral ablations of the frontotemporal region of the cerebral hemispheres as defined in neuroanographic studies. The additional animals received lesions restricted to the orbital, insular, and temporal portions of the region. Locus and extent of lesion was verified histologically and reconstructions were made. Thalamic degeneration was analyzed.

2. A battery of observations and tests was administered pre- and postoperatively. This battery included such tests for visual processes as determination of the extent of visual fields, examination of visual pursuit and visual acuity, training for performance of visual pattern discrimination and testing of discrimination of food from non-food objects. Acceptance thresholds for quinine solutions of various concentrations were determined. The response to social and noxious stimuli was recorded. Performance of delayed response was tested. Locomotor activity, food intake, and basal temperature determinations were made, and sleep-activity cycles observed.

3. In general, reconstruction showed lesions to be bilaterally symmetrical and to include most of the cortex of the posterior orbital gyrus, anterior and limen insulae, as well as temporal pole, periamygdaloid cortex and amygdala. Degeneration in the medial magnocellular portion of the n. medialis dorsalis, midline intralaminar, n. medialis ventralis, and medial pulvinar of the thalamus were related respectively to the lesions in the posterior orbital gyrus, anterior perforate substance and limen insulae, temporal polar formations, and anterolateral temporal cortex.

4. Several aspects of the complex syndrome associated with large bilateral temporal lobe lesions were selectively related to interference with the frontotemporal region. Performance in vision, with respect to acuity, extent of field, and ability to make discriminations was unaffected by such lesions. No changes with respect to ability to localize tactile stimuli were observed. Range of movement was unaltered. Performance in the delayed-reaction test was unimpaired. On the other hand, altered behavior did occur in the categories of taste, anergy metabolism and approach to or avoidance of a variety of stimuli including noxious and social ones.

5. This specificity of results takes on added significance in light of the fact that ablation of adjacent regions of the frontal and temporal lobes have produced a different constellation of behavioral changes. Ablations in the lateral frontal region are associated with selective interference with delayed-response-type functions (Pribram, Mishkin, Rosvold and Kaplan, 1952). Inferior temporal ablations result in selective impairment of animal's ability to solve simultaneously presented problems of visual discrimination (Chow, 1951; Mishkin, in press; Mishkin and Pribram, in press).

6. Further subdivision of the syndrome is possible by making more restricted lesions in the frontotemporal region. Specifically, the frontal portion of the region is related to locomotor activity, the insular portion to taste, and the temporal polar-amygdaloid formations to food intake and temperature regulation.

7. The relation between altered appetitive mechanisms related to metabolism and altered reaction to noxious and social stimuli is pointed out.

(Authors' Abstr.)

DECEMBER

Relations of Brain Centers to Normal and Abnormal Eye Movements in the Horizontal Plane. <i>Crosby, E. C.</i> ..	437
The Capacity of Regenerating Axons to Bridge Long Gaps in Nerves. <i>Sunderland, S.</i>	481
Structure and Significance of the Peripheral Extension of the Autonomic Nervous System. <i>Meyling, H. A.</i> ..	495

- The Choroid Plexus of the Lateral and Third Ventricles of Tailed Amphibia. *Hilton, W. A.* 545
- Investigations on the Nature of Peripheral Factors Influencing the Process of Motor Nerve Regeneration. *Evans, D. H. L.* 561
- The Identity of the Posterior Dorso-central Nucleus of Panegrossi. *Warwick, R.* 599
- Studies of the Spinal Cord. II. *Yoss, R. E.* 613
- Human Thalamus. *Dekaban, A.* 639
- VOL. 46 J. COMP. PHYSIOL. PSYCHOL. OCTOBER, 1953**
- The Effect of the Hunger and Thirst Drives upon Exploratory Behavior. *Montgomery, K. C.* 315
- Relation of Random Activity to Food Deprivation. *Campbell, B. A., and Sheffield, F. D.* 320
- Exploratory Behavior as a Function of Hunger in "Bright" and "Dull" Rats. *Thompson, W. R.* 323
- Eating and Drinking as a Function of Maintenance Schedule. *Verplanck, W. S., and Hayes, J. R.* 327
- Choice-Point Behavior as a Function of Secondary Reinforcement with Relevant Drives Satiated. *Seward, J. P., and Levy, N.* 334
- Subcortical Mechanisms in Emotional Behavior. *Brady, J. V., and Nanta, W. J. H.* 339
- Bioelectrical Potentials and Mental Effort. *Ford, A.* 347
- Effects of Changes in Arterial Oxygen and Carbon Dioxide upon Cochlear Microphonics. *Wing, K. G., et al.* 352
- Behavioral Adjustment to Thiamine Deficiency in Albino Rats. *Luria, Z.* 358
- The Effect of Androgenic Convulsions on a Conditioned Emotional Response. *Brady, J. V., et al.* 363
- The Effect of ECS on a Conditioned Emotional Response. *Brady, J. V.* 368
- Effects of ECS on Wildness and Savageness in Feral Rats. *Stone, C. P.* 373
- Conditioned and Unconditioned Emotional Defecation in the Rat. *Hunt, H. F., and Otis, L. S.* 378
- A Spatial Gradient of Alternation Tendency. *Zeaman, D., and Angell, D.* 383
- The Age-Factor in Multiple Discrimination Learning by White Rats. *Fields, P. E.* 387
- Discrimination of Colored Food and Food Signs by Primates. *Jarvik, M. E.* 390
- Perceptual Differentiation in the Course of Non-differential Reinforcement. *Bitterman, M. E., et al.* 393
- The Role of Generalized Approach and Avoidance Tendencies in Brightness Discrimination. *Eninger, M. U.* 398
- A Gradient of Reinforcement Obtained from a Complex Discrimination Problem. *Mathers, B. L.* 403
- Practical and Theoretical Solutions to Difficulties in Using Licklider's Rat Shocker. *Beck, L. H., et al.* 407
- DECEMBER**
- Taste and Postingestion Factors in Specific-Hunger Behavior. *McCleary, R. A.* 411
- Aperiodic Feeding Behavior in the Albino Rat. *Baker, R. A.* 422
- Social Facilitation of Eating Behavior in Puppies after Satiation. *James, W. T.* 427
- Elevation of Activity Level in the Rat Following Transition from Ad Libitum to Restricted Feeding. *Hall, J. F., et al.* 429
- The Effects of Combining Hunger and Thirst Motives in a Discrimination Habit. *Powloski, R. F.* 434
- The Effect of Activity Deprivation upon Exploratory Behavior. *Montgomery, K. C.* 438
- Ultrasonic Hearing in the Porpoise. *Kellogg, W. N.* 446
- The Differential Effect of a Rotary Visual Field on Susceptibles and Nonsusceptibles to Motion Sickness. *Crampton, G. H., and Young, F. A.* 451
- Autonomic Balance and Temperament. *Terry, R. A.* 454
- Effect of Brain Damage on Intelligence in Rats. *Landsell, H. C.* 461
- The Effect of Carbon Disulphide Convulsions on a Conditioned Emotional Response. *Hunt, H. F., et al.* 465
- Picture Perception in a Home-Raised Chimpanzee. *Hayes, K. J., and C.* 470
- Perceptual Differentiation as a Function of Nondifferential Reward and Punishment. *Bitterman, M. E., et al.* 475
- Effects of Pretrial Immersion on Maze Performance of Rats. *Obias, M. W., and Stone, C. P.* 479
- Additivity of Cues in Visual Pattern Discrimination by Monkeys. *Warren, J. M.* 484
- The Specificity of the Fixated Response in the Rat. *Feldman, R. S.* 487
- The Absolute and Relative Theories of Transposition Behavior in Rats. *Hunter, I. M. L.* 493
- Nonspatial Delayed Response to Trial-Unique Stimuli in Sophisticated Chimpanzees. *Hayes, K. J., and Thompson, R.* 498
- VOL. 46 J. EX. PSYCHOL. NOVEMBER, 1953**
- Generalization of the Conditioned Galvanic Skin Response to Visual Stimuli. *Grant, D. A., and Schiller, J. J.* 309

- Scotopic Area-intensity Relations at Various Retinal Locations. *Riopelle, A. J., and Chow, K. L.* 314
- Characteristics of the Muscle Tension Response to Paired Tones. *van Liere, D. W.* 319
- Perceptual Judgment as a Function of Mental Set, Anchoring Point and Method of Judgment. *Hill, C. W.* 325
- The Effects of Various Kinds of Relevant Verbal Pretraining on Subsequent Motor Performance. *McAllister, D. E.* 329
- Bilateral Reminiscence in Pursuit-Rotor Learning as a Function of Amount of First-hand Practice and Length of Rest. *Rockway, M. R.* 337
- Twenty Questions. *Bendig, A. W.* 345
- An Effect of Repeated Conditioning-Extinction upon Operant Strength. *Bullock, D. H., and Noble, M. E.* 353
- A Quantitative Approach to Figural "Goodness". *Hochberg, J. and McAlister, E.* 361
- Simultaneous Vision and Audition. *Mowbray, G. H.* 365
- An Informational Analysis of Absolute Judgments of Loudness. *Garner, W. R.* 373

DECEMBER

- The Achievement Motive and Recall of Interrupted and Completed Tasks. *Atkinson, J. W.* 381
- Establishment of an Avoidance Gradient under Latent-Learning Conditions. *Strain, E. R.* 391
- Proactive Inhibition and Associative Facilitation as Affected by Degree of Prior Learning. *Atwater, S. K.* 400
- Effects of Response Alteration and Different Instructions on Proactive and Retroactive Facilitation and Interference. *McFann, H. H.* 405
- Factors Influencing Verbal Learning from Films under Varying Conditions of Audience Participation. *Michael, D. N., and Maccoby, N.* 411
- Transfer as a Function of Type and Amount of Preliminary Experience with Task Stimuli. *Goss, A. E.* 419
- Distribution of Practice Prior to Solution of a Verbal Reasoning Problem. *Shaklee, A. B., and Jones, B. E.* 429
- Amount Set and the Length-Difficulty Function for a Self-Paced Perceptual-Motor Skill. *Noble, C. E.* 435
- Transfer of Training in Motor Learning as a Function of Distribution of Practice. *Montgomery, V. E.* 440
- Retention of Transfer in Motor Learning after Twenty-four Hours and after Fourteen Months. *Duncan, C. P., and Underwood, B. J.* 445
- Simultaneous Contrast as a Function of Separation between Test and Inducing Fields. *Leibowitz, H., et al.* 453
- The Locus of Short Duration Auditory Fatigue or "Adaptation". *Harris, J. D., and Rawnsley, A. I.* 547

VOL. 49 J. GEN. PSYCHOL. OCTOBER, 1953

- The Interaction of Stimulus Area and Intensity as Cues in the Perception of Distance. *Lloyd, V. V.* 167
- The Satiation Theory of Figural After-effects and the Principle of Prägnanz. *Luchens, A. S., and E. H.* 185
- Taxonomy of Mental Disease. *Kline, N. S., and Gerard, D. L.* 201
- A Projective Technique to Measure Adjustment to Hospital Environment. *Luft, J., et al.* 209
- Card VI Disturbance on the Rorschachs of Sex Offenders. *Guertin, W. H., and Tremboth, W. E.* 221
- The Occurrence of Clustering in the Recall of Randomly Arranged Associates. *Bousfield, W. A.* 229
- Stereoscopic Settings as Functions of Vertical Disparity and Target Declination. *Lothridge, C. D.* 241
- Changes in Galvanic Skin Resistance as Indication of Pain Threshold. *Clauson, J., et al.* 261
- A Cognitive Theory of Dreams. *Hall, C. S.* 273
- Mathematical Theories of Learning. *Spence, K. W.* 283
- Adjustment Items which Differentiate Between Psychiatric Categories of Military General Prisoners. *Altus, W. D.* 293
- The Concept of Goal Gradients. *Cohen, J.* 303

VOL. 83 J. GENET. PSYCHOL. SEPTEMBER, 1953

- Choice Behavior in Satiated Rats as a Function of Drive During Training. *Seward, J. P., et al.* 3
- Response to Physiological Stress in Normal and Behavior Problem Children. *Ellingson, R. J.* 19
- The "Neurotic" Rorschachs of Normal Adolescents. *Ives, V., et al.* 31
- Visual Discrimination Performance in Rhesus Monkeys Following Extirpation of Prestriate and Temporal Cortex. *Riopelle, A. J., and Ades, H. W.* 63

3. The highest rate of suicide occurred within the first three months of hospitalization, while few patients committed suicide after they had been institutionalized five years or longer.

4. Fifty per cent. of the patients who committed suicide were classified as schizophrenia, while only 10 per cent. were diagnosed as manic depressives, depressed, and furthermore depression was found to be present in only 55 per cent. of the patients, while in 45 per cent. there was no evidence of depressive features, either during the psychotic episodes or in the premorbid personality make-up. Suicide in these cases probably occurred as a result of auditory hallucinations and delusions.

5. The incidence of suicide was then considered during the preshock era and during the shock era. The rate during the preshock era was 42 suicides per 10,000 admissions, while during the shock era it was 32 per 10,000 admissions. However, it was felt that rather than the application of shock treatment, this slight decrease in the suicide rate during the shock era is due to other factors, the most important of which are: (1) the shifting of the average age of the total population to the older age group (during the preshock era 15 per cent. of the admissions were 65 years of age and older, while this increased to 27 per cent. during the shock era); (2) 50 per cent. of the patients were diagnosed as schizophrenics while only 10 per cent. would fall within the manic depressive group; (3) the long duration of mental illness in most of the patients, and finally (4) the fact that depression was at work in only a little more than half of the patients. (Authors' Abstr.)

Improvement in Psychosis Following Conditioned-Reflex Treatment for Alcoholism

1. Five hundred and ninety-one patients were treated by the conditioned reflex treatment for alcoholism.

2. Twenty-seven patients suffered from mental disorders.

3. Of the 27 patients, 21 suffered from mental disorders due to alcohol or associated deficiency states. These patients were divided as follows: 6 cases of delirium tremens, 6 cases of acute alcoholic hallucinosis, 1 case of pathological intoxication, 2 cases of chronic mental deterioration in which there were also alcoholic convulsions, 6 cases of prodromal symptoms of delirium tremens, but in which delirium tremens did not develop.

4. Six patients suffered from mental disorders not due to alcohol. Three of these were cases of involuntional melancholia and 3 of schizophrenia, paranoid type.

5. Marked improvement from aversion treatment was noted in all patients except one. This was a case of chronic mental deterioration. In the 3 cases of involuntional melancholia and the 3 cases of schizophrenia, paranoid type, unexpected remissions occurred which could not be accounted for by the removal of alcohol alone.

6. Aversion treatments for alcoholism apparently have an unexplained beneficial effect on mental abnormality. It is surmised that this may be due to improvement in cerebral circulation and to physiologic stimulation of the diencephalon and adjacent cerebral centers. (Authors' Abstr.)

The Use of Mebaral in the Treatment of Chronic Alcoholism

Mebaral (tri-methyl derivative of phenobarbital) has been given to 41 chronic alcoholics for the purpose of relieving their tension and irritability and thereby reduce their inclination to drink. In the alcoholic who is tense, restless, insomnic, and constantly agitated, this medication has its greatest benefit. The drug was selected because of the minimal amount of drowsiness or euphoria produced and the lessened likelihood of habituation. All of the patients treated were indigent. Ninety-three per cent. had failed on one or more other forms of treatment, and all had been unable to work steadily for from three to nine years because of their excessive alcoholism.

Difficulty was experienced in maintaining these patients on the medication following their recovery from a bout. In no instance in this series did a patient resume his alcoholism while taking the medication in the prescribed manner. Fifteen have continued to abstain from two weeks to five months. Sixteen were maintained for two to four weeks as out-patients without taking any alcohol, while waiting to begin treatment with TETD (Antabuse). Eleven were unimproved. Eighteen patients on B complex vitamin therapy showed 13 per cent. fewer improved than in the group who also received Mebaral. Those who could be maintained on the drug were able to continue to abstain from the use of alcohol. (Authors' Abstr.)

JULY

The Histogenic Principle of Microgyria and Related Cerebral Malformations. Warner, F. J.	1
The Effect of Direct Suggestion on Pain Sensitivity in Normal Control Subjects and Psychoneurotic Patients. Chapman, W. P., et al.	19
"Looseness of Association" and Impairment in Abstraction in Schizophrenia. Meadow, A., et al.	27
ECT and Insulin Coma Therapy in the Presence of Active Pulmonary Tuberculosis. Weinstein, L.	36
Multiple Transference Relationship Therapy in an Open Staff Hospital. Conn, J. H., and Brickner, J. G.	51
Psychopathology of Insulin Therapy. Reiner, E. R.	61

Experience with Reiter Type of Electric Coma at the Boston Psychopathic Hospital. <i>Landau, D., and Holt, W. L.</i>	66
Studies in the Therapy of Parkinsonism. <i>Effron, A. S.</i>	72

AUGUST

*Alzheimer's Disease. <i>Goodman, L.</i>	97
Studies in Electronarcosis Therapy. <i>Simon, A., et al.</i>	131
The Conscious and Unconscious Attitudes of Psychotic Patients Toward Electric Shock Treatment. <i>Fisher, S., et al.</i>	144
The "Latency Stage" in Psychotherapy. <i>Hardin Branch, C. H., and Korner, I. N.</i> ..	153
Electrotonic Treatment in Dementia Paralytica. <i>Petersen, M. C.</i>	162
Hyperostosis Frontalis Interna. <i>Stern, R. L., and Hollander, S.</i>	168

Alzheimer's Disease: A Clinico-pathologic Analysis of Twenty-three Cases with a Theory on Pathogenesis

Histochemical and quantitative histological studies of twenty-three cases of Alzheimer's disease suggests two possibilities with regard to pathogenesis of the syndrome and to histogenesis of the lesions. The first possibility and the one that seems to be more likely, is, that it may be due to a disturbance in the cerebral metabolism of iron, resulting in secondary devitalization of the microglia. The second possibility is that there is a primary devitalization of the microglia which leads to the gradual accumulation of metabolic wastes in the nerve and macroglial cells producing their ultimate degeneration.

In either case, the histogenesis of Alzheimer neurofibrillary degeneration and argento-philic plaque formation is believed to be due to microglial insufficiency, whether the latter phenomenon is primary or secondary. The histogenetic theory of microglial insufficiency or inhibition accounts for the origin of plaques from nerve cells as well as from the macroglial and microglial cells. It affords a rational explanation for the apparent dissociation between plaques and Alzheimer cell changes. Depending upon the relative functional state of the microglia, the quantitative relationships between the two related phenomena will vary accordingly from case to case and even in different parts of the same brain.

From a study of an Alzheimer diseased brain six days after cerebral biopsy had been performed, it was concluded that the microglia in the tissue adjoining the biopsy lesion exhibited adequate ability to carry on the complex activities of phagocytosis and of fat elaboration. This suggests that the microglial defect might be one of inhibition rather than of devitalization.

The effects of anti-reticular cytotoxic serum in three cases of Alzheimer's disease were inconclusive but they indicated that the microglial cells, as part of the reticulo-endothelial system, may have been responsive to the stimulation of A.C.S. Further studies along these lines, are indicated.

Significant clinical, pathological and histochemical differences between Alzheimer's disease and senile dementia justify the conclusion that Alzheimer's disease is a metabolic syndrome which may occur independent of senile changes. There is no conclusive evidence that Alzheimer's disease is a premature form of senescence even though it occurs predominantly during the so-called pre-senium.

Expert investigation along biochemical lines is indicated by the foregoing findings and probably until this is undertaken, the solution of the pathogenesis of Alzheimer's disease will remain a mystery. (Author's Abstr.)

VOL. 16	J. NEUR. NEUROSURG. PSYCHIAT.	NOVEMBER, 1953
*The Brain-stem Lesions in Parkinsonism. <i>Greenfield, J. G., and Bosanquet, F. D.</i> ..	213	
The Arnold-Chiari Malformation. <i>Verbiest, H.</i>	227	
Temporal Lobe Epilepsy with Personality and Behaviour Disorders Caused by an Unusual Calcifying Lesion. <i>Falconer, M. A., and Pond, D. A.</i>	234	
Spinal Pathways Subserving Defecation, and Sensation from the Lower Bowel. <i>Nathan, P. W., and Smith, M. C.</i>	245	
*Substances which Support Respiration and Metabolic Response to Electrical Impulses in Human Cerebral Tissues. <i>McIlwain, H.</i>	257	
The Sex Ratio in Convulsive Disorders with a Note on Single-sex Sibships. <i>Ounsted, C.</i>	267	
Prognostic Factors in ECT. <i>Hobson, R. F.</i>	275	

The Brain-stem Lesions in Parkinsonism

The pigmented cells of the brain-stem, especially those in the substantia nigra and locus coeruleus, have been examined in 19 cases of idiopathic paralysis agitans, 10 cases of Parkinsonism with a history of an attack of encephalitis between the years 1918 and 1924, and five cases of Parkinsonism of uncertain aetiology. Five types of changes were found in these cells (1) Saccular distension by lipochrome granules along with disappearance of Nissl granules, melanin, and nucleus; (2) vacuolation, which was considered unimportant; (3) binucleated nerve cells, which were very rare; (4) Lewy's spherical concentric hyaline inclusions; (5) neurofibrillary tangles, somewhat similar to those seen in Alzheimer's disease, but unaccompanied by senile plaques.

The first three types were seen in post-encephalitic cases and in occasional cases in the control group. Lewy's hyaline inclusions were found in all of our cases of typical idiopathic paralysis agitans, and in one complicated case which may have been post-encephalitic. Neurofibrillary tangles were found in nine post-encephalitic cases, in one case associated with amyotrophy, which was clinically idiopathic. In one case of Parkinsonism associated with olivo-ponto-cerebellar degeneration, and in 22 cases in the age group 50 to 90 years, with no signs of Parkinsonism, neither of the last two types of cell change could be found in the pigmented cells of the brain-stem. The significance of these findings is discussed in relation to the literature on the subject. (Authors' Abstr.)

Substances which Support Respiration and Metabolic Response to Electrical Impulses in Human Cerebral Tissues

Human cerebral tissues removed during operations for prefrontal and temporal lobectomy afforded about 40 specimens for determining the initial respiratory rate in a phosphate-buffered saline with glucose as substrate. The mean rate so obtained was of 55 μ moles O₂/g. fresh tissue/hr. The variation in respiratory rate was relatively large (S.D. 10·6) but rates were not systematically different in tissue from frontal and temporal areas. The rates changed little if at all during the first two hours' metabolism.

Applied electrical impulses increased respiration to up to 110 μ moles O₂/g. hr., which is close to the probable respiratory rate of human cerebral cortex in situ.

Aerobic accumulation of lactic acid with glucose as substrate proceeded concomitantly with normal respiration and at about 25 μ mole/g. fresh wt./hr. This also could be doubled by applied electrical impulses.

The respiratory rate of human cerebral tissue in a phosphate saline without substrate was lower initially than when glucose was present and fell further after 30 minutes' metabolism. Electrical impulses effective with glucose were then without action. Fumarate as the only substrate was without effect on the lower rate, on the fall in rate, and on the rate with applied impulses.

Succinate as the only substrate maintained respiration without permitting response to impulses. Citrate maintained less stable rates which were affected little by impulses. Lactate and pyruvate maintained well the respiratory rate of the tissues and permitted clear responses to applied impulses. Reaction to these substrates is similar in human tissues and in those from experimental animals.

With glutamic acid as substrate, human tissues behaved differently from those from other animals examined. Respiratory rate was maintained and responded to applied impulses.

Comparative observations were made on normal and treated guinea-pig tissues and on two specimens from rhesus monkey. (Author's Abstr.)

VOL. 13 J. NEUROPATH. EX. NEUR. 1954

Mechanisms of Apoplexy as Determined by Clinical and Pathological Correlation.	
<i>Adams, R. D.</i>	1
The Dandy-Walker Syndrome or the So-called Atresia of the Foramen Magendie.	
<i>Benda, C. E.</i>	14
Subependymal Glomerate Astrocytomas. <i>Boykin, F. C., et al.</i>	30
Pallido-pyramidal Disease. <i>Davison, C.</i>	50
Neuropathologic Variations in Experimental Allergic Encephalomyelitis. <i>Ferraro, A., and Roisin, L.</i>	60
Changes in Behavior Following Lobotomy. <i>Freeman, W.</i>	90
Spongioneuroblastoma and Tuberosus Sclerosis. <i>Jervis, G. A.</i>	105
Malformation of the Forebrain with Comments on the So-called Dorsal Cyst, etc.	
<i>Lichtenstein, B. W., and Maloney, J. E.</i>	117
Diffuse Cerebrospinal Gliomatosis Masked by Syphilis. <i>Moore, M. T.</i>	129
Lesions of the Human Brain Following Circulatory Arrest. <i>Neubuerger, K. T.</i>	144
Metachromasia in the Nervous System. <i>Noback, C. R.</i>	161
Peripheral Neuropathy and Connective Tissue Disease. <i>Richter, R. B.</i>	168
The Histopathology of Wilson's Disease. <i>Scharenberg, K., and Drew, A. L.</i>	181
The Effect of Hypothalamic Lesions upon Body Temperature Maintenance in the Albino Rat, etc. <i>Sherwood, C., et al.</i>	191
Pain Reactions upon Stimulation of the Tectum Mesencephalii. <i>Spiegel, E. A., et al.</i>	212
Morphology of Spirochaeta Myelophthora in Multiple Sclerosis. <i>Steiner, G.</i>	221
The Pathology and Pathogenesis of Cerebral Aneurysm. <i>Walker, A. E., and Allegre, G. W.</i>	248
Paraplegia in Flexion of Cerebral Origin. <i>Yakovlev, P. I.</i>	267

VOL. 16 J. NEUROPHYSIOL. NOVEMBER, 1953

*Exteroceptive and Proprioceptive Ascending Impulses in Pyramidal Tract of Cat.	
<i>Brodal, A., and Kaada, B. R.</i>	567
*Effect of Lesions on Subcortically Evoked Movement in Cat. <i>Hendley, C. D., and Hodes, R.</i>	587
Properties of Chemoreceptors of Tongue of Rat. <i>Beidler, L. M.</i>	595
Spread of Evoked Cortical Potentials. <i>Mickle, W. A., and Ades, H. W.</i>	608

- Functional Characteristics of Afferent Fibers from Tooth Pulp of Cat. *Brookhart, J. M., et al.* 634
 Behavioral Changes Following Rhinencephalic Injury in Cat. *Schreiner, L., and Kling, A.* 643

Exteroceptive and Proprioceptive Ascending Impulses in Pyramidal Tract of Cat

1. By means of the evoked potential method the existence of the anatomically demonstrated ascending fibers in the pyramid of the cat (4) has been confirmed.

2. The electrical activity set up in the pyramidal tract fibers by an afferent volley from various cutaneous and muscular nerves consists of several positive deflections followed by a low-voltage negative wave. The responses to stimulation of cutaneous nerves are considerably larger than those evoked from muscular nerves and show more distinct deflections, suggesting the presence of groups of fibers of different conduction velocities.

3. There are striking similarities between the ascending and descending pyramidal fiber systems. Thus, the majority of ascending fibers, like the descending ones, appears to be crossed; further, the pyramidal response is greater when stimulating nerves of the forelimbs than of the hindlimbs and greater when induced from nerves supplying the distal parts of the limbs than from nerves innervating the proximal parts; the termination of the ascending fibers in the cerebral cortex finally is much the same as the origin of the descending pyramidal fibers.

4. It is estimated that 70-80 per cent. of the ascending exteroceptive impulses in the pyramid travel by direct spinocortical fibers, and the remaining 20-30 per cent. via nuclei of the dorsal funiculi. The proprioceptive impulses to the pyramid seem to be about equally distributed among the two spinal paths.

5. The possible functional significance of the ascending pyramidal tract fibers is discussed. The suggestion is ventured that they are in some way of importance for the coordination of differentiated, skilled movements and further that they may represent the still unknown afferent path in the plantar and abdominal reflexes and in the placing and hopping reactions.

(Authors' Abstr.)

Effects of Lesions on Subcortically Evoked Movement in Cat

The authors have produced phasic movement of the contralateral forelimb in anesthetized cats by stimulation of the caudate nucleus, hypothalamus and anterior thalamus. When movement was induced by stimulating the caudate nucleus, it could be abolished by lesions at the base of the brain stem in the mid-line, at the junction of diencephalon and midbrain. These lesions did not seriously affect cortically induced movement. On the other hand, lesions of the medial portion of the cerebral peduncles abolished movement from cortex and sub-cortex alike.

The results suggest a pathway for movement, distinctive from the cortico-spinal tracts, that originates in or passes through the caudate nucleus. It then proceeds caudad in or close to the internal capsule, assuming a medial position through the diencephalon before swinging laterally in the midbrain to enter the ipsilateral basis pedunculi and continue caudad in the pyramids.

(Authors' Abstr.)

VOL. 10	J. NEUROSURG.	NOVEMBER, 1953
Surgical Treatment of Saccular Intracranial Aneurysms. <i>Steelman, H. F., et al.</i>	..	564
Studies of Pressures in the Carotid Artery of Patients Undergoing Cerebral Angiography. <i>Stern, W. E.</i>	..	577
Osteitis Deformans with Spinal Cord Compression. <i>Latimer, F. R., et al.</i>	..	583
The Treatment of Internal Carotid Artery Aneurysms by Proximal Arterial Ligation. <i>Black, S. P. W., and German, W. J.</i>	..	590
Techniques and the Dangers of Cerebral Angiography. <i>Rowbotham, G. F., et al.</i>	..	602
Paraplegia Caused by Spontaneous Spinal Epidural Hemorrhage. <i>Schultz, E. C., et al.</i>	..	608
Controlled Hypotension at Intracranial Operations. <i>Wiklund, P. E.</i>	..	617
Sympathectomy of the Upper Extremity. <i>Ray, B. S.</i>	..	624
Surgical Treatment of Aneurysms of the Anterior Communicating Artery. <i>Norlen, G., and Barnum, A. S.</i>	..	634
VOL. 22	J. PERSONAL.	1953
Headache Proneness and Mechanisms of Motor Conflict in Psychiatric Patients. <i>Malmö, R. B., et al.</i>	..	163
Cognitive Controls in Serial Behavior Patterns. <i>Smith, G. J. W., and Klein, G. S.</i>	..	188
Cognitive Styles in Categorizing Behavior. <i>Gardner, R. W.</i>	..	214
A Comparative Study of Dreams and Response to the TAT. <i>Gordon, H. L.</i>	..	234
A Further Investigation of the Influence of "Threat-Expectancy" on Perception. <i>Beier, E. G., and Cowen, E. L.</i>	..	254
Democratic versus Authoritarian. <i>McCurdy, H. G., and Eber, H. W.</i>	..	258
Social Attainment and Reactions to Stress. <i>Phillips, L., and Cowitz, B.</i>	..	270
Social Attainment and Performance under Stress. <i>Feffer, M., and Phillips, L.</i>	..	284
VOL. 73	JOURN.-LANCET	1953
Rorschach Test and its Forensic Implications. <i>Kamman, G. R.</i>	..	325
Transient Cerebral Paralysis. <i>Fawcett, R. M.</i>	..	346

1954]	BIBLIOGRAPHY AND EPITOME	781
VOL. 43	J. PEDIAT.	1953
Chorea Minor Treated with ACTH and Cortisone. <i>Schwartzman, J., et al.</i>	.. ..	278
Hamartoma of Hypothalamus. <i>Marcuse, P. M., et al.</i>	.. ..	301
Serum Corticoids in Children under Stress. <i>Klein, R., et al.</i>	.. ..	385
Unusual Forms of Central Nervous System Disease in Newborn Infant. <i>Berrey, B. H., and Dannenbring, F. G.</i>	.. ..	388
Use of Mysoline in Treatment of Epilepsy. <i>Doyle, P. J., and Livingston, S.</i>	.. ..	413
VOL. 17	J. PROJ. TECHNIQ.	1953
Projective Techniques and the Development of Personality. <i>Bell, J. E.</i>	.. ..	391
An Investigation of Sexual Symbolism. <i>Hammer, E. F.</i>	.. ..	401
Some Relationships Between Rorschach Scores in Kindergarten, etc. <i>Meyer, G.</i>	.. ..	414
An Approach to Standardization of Rorschach Form-level. <i>Walker, R. G.</i>	.. ..	426
A Preliminary Analysis of the Rorschach Records of Fifty Prison Inmates. <i>Walters, R. H.</i>	.. ..	437
VOL. 37	J. PSYCHOL.	1954
Crozier and Wolff on Flicker-fusion, 1933-44. <i>Landis, C.</i>	.. ..	3
Variability as a Variable. <i>Lepley, W. M.</i>	.. ..	19
Pure Guidance and Handling as Components of the Maier Technique for Breaking Abnormal Fixations. <i>Haslerud, G. M., et al.</i>	.. ..	27
Spread and Intensity of Vocational Interests and Evaluative Attitudes in First-year Negro Medical Students. <i>Milam, A. T., and Sumner, F. C.</i>	.. ..	31
Perceptual Organization in a Study of Creativity. <i>Stein, M. I., and Meer, B.</i>	.. ..	39
Similarity in Teacher and Pupil Personality. <i>Amatora, M.</i>	.. ..	45
Rorschach Statistics on a Group of 136 Normal Men. <i>Wedemeyer, B.</i>	.. ..	51
Further Remarks on the Hypothetical Construct. <i>Plutchik, R.</i>	.. ..	59
Sensory versus Autonomous Control of Span of Apprehension. <i>Knehr, C. A., and Fuller, N.</i>	.. ..	65
The Influence of Threat Appeals on Selective Learning of the Content of a Persuasive Communication. <i>Janis, I. L., and Milholland, H. C., jun.</i>	.. ..	75
Directional After-effects Following Systematic Distortion of the Visual Field. <i>Culbert, S. S.</i>	.. ..	81
Normative Data on the Rorschach. <i>Neff, N. S., and Glaser, N. M.</i>	.. ..	95
Cognitive System-principles of Leveling and Sharpening. <i>Holzman, P. S., and Klein, G. S.</i>	.. ..	105
The Continuation of Tapping Sequences. <i>Gottsdanker, R. M.</i>	.. ..	123
Two-factor Interpretation of an Instance of Fear Learning. <i>Friedman, M. H.</i>	.. ..	133
A Further Experiment in the Recognition of Ego-involved Materials. <i>Tresselt, M. E., and Mayzner, M. S., jun.</i>	.. ..	135
Personality Orientation. <i>Dana, R. H.</i>	.. ..	139
Intelligence and Conservative-liberal Attitudes. <i>Rubin-Rabson, G.</i>	.. ..	151
Social Perception as a Function of Identification. <i>Schneiderman, L.</i>	.. ..	155
VOL. 38	J. SOC. PSYCHOL.	AUGUST, 1953
Common and Discrete Group Values. <i>Hartung, F. E.</i>	.. ..	3
Prestige Suggestion in Art as Communication. <i>Bernberg, R. E.</i>	.. ..	23
Judgment of Prejudice Before, During and After World War II. <i>Morsh, J. E., and Smith, M. E.</i>	.. ..	31
The Willingness to be Interviewed. <i>Kruglov, L. P., and Davidson, H. H.</i>	.. ..	39
The Failure of a Propaganda Campaign Attempting to Influence the Behavior of Consumers in the National Interest, etc. <i>Mintz, A.</i>	.. ..	49
Discrimination of Facial Expression and its Relation to Personal Adjustment. <i>Fields, S. J.</i>	.. ..	63
Attitudes of Canadian Veterans to Political and Economic Issues. <i>Solberg, P. A.</i>	.. ..	73
An Analysis of Interpersonal Choice Relationships of College Students. <i>Horrocks, J. E., and Wear, B. A.</i>	.. ..	87
Some Religious Feelings of the Post-poliomyelitic. <i>Wendland, L. V.</i>	.. ..	99
Investigation of the Use of Tests as a Predictor of Leadership and Group Effectiveness in a Job Evaluation Situation. <i>Rock, M. L., and Hay, E. N.</i>	.. ..	109
A Study of Relationships between Factors of Personality and Intelligence. <i>Trumbull, R.</i>	.. ..	161
Sex Differences in Adolescent Socialization. <i>Schoeppe, A.</i>	.. ..	175
Are Criminals Morons. <i>De Stephens, W. P.</i>	.. ..	187
Social Class and Self-concept. <i>Klausner, S. Z.</i>	.. ..	201
The Effect of Family Environment on Attitudes Toward Old People and the Older Worker. <i>Tuckman, J., et al.</i>	.. ..	207
Some Relations of Personality Integration to Occupational Interests. <i>Helper, M. M., and McQuitty, L. L.</i>	.. ..	219
Some Background Correlates of Personality and Social Attitudes. <i>Davidson, H. H., and Kruglov, P. P.</i>	.. ..	233

Attitudes of Civilian Females Toward War, etc. <i>Barkley, K. L.</i>	241
Personality Correlates of Differential Reactions to Minority Group-belonging. <i>Raake-Yanow, M., and Lande, B.</i>	253
Attitudes Toward Socialized Medicine. <i>Mahler, I.</i>	273
VOL. 18	1953
J. SPEECH. HEAR. DIS.	
Norms on a Screening Test of Articulation for Ages Through Eight. <i>Templin, M. C.</i>	323
The Relationship Between Articulation and Other Developmental Factors in Children. <i>Everhart, R. W.</i>	332
Speech Examination of a Group of Institutionalised Mentally Handicapped Children. <i>Schlanger, B. B.</i>	339
Group Therapy with Preschool Children having Cerebral Palsy. <i>Backus, O., and Coffman, R.</i>	350
Possibilities of Research for Public School Speech Therapists. <i>Templin, M. C.</i> ..	355
Audiometric Testing of Hearing of School Children. <i>Wishik, S. M., and Kramm, E. R.</i>	360
Group Auditory Training Unit for Preschool Children. <i>Bangs, T. E., and Shapley, J. L.</i>	366
The Eyblink Response as a Test for Hearing. <i>Galambos, R., et al.</i>	373
The Threshold Reliability of Recorded Sustained Vowels. <i>Tiffany, W. R.</i>	379
Adaptation to Delayed Side-Tone. <i>Atkinson, C. J.</i>	386
VOL. 70	1953
J. UROL.	
Genital Self-Mutilations by Mental Patients. <i>Beilin, L. M.</i>	648
LANCET	1953 (2)
Anxiety States in General Practice. <i>Tredgold, R. F.</i>	409
Effect of Emotion on Renal Function in Normotensive and Hypertensive Women. <i>Miles, B. E., and de Wardener, H. E.</i>	539
Orbital Leucotomy. <i>Tow, P. M., and Lewin, W.</i>	644
Results of Treatment of Infantile Cerebral Palsy. <i>Colles, E.</i>	757
VOL. 10	1953
LOUIS. S. M. S. J.	
Psychiatry and Public Opinion. <i>Young, R. C.</i>	318
Hearing and Speech Impairment in Young Children. <i>Rubin, W., and Laguate, J. K.</i>	356
Functional Headache. <i>Donaldson, F. A., and Waldon, W. L.</i>	360
VOL. 21	1953
MAAND. KINDER.	
Occurrence and Treatment of Migraine in Children. <i>de Wit, J. C.</i>	259
VOL. 42	1953
MED.	
Therapeutic Sleep with Phenothiazine Derivatives (Atosil and Megaphen). <i>Ratschow, M.</i>	1351
VOL. 22	1953
MED. ANN. DIS. COL.	
Anxiety Reactions: Acute Anxiety Attack or Panic, etc. <i>Laughlin, H. P.</i>	463
Dissociative Reactions. <i>Laughlin, H. P.</i>	541
VOL. 40	1953 (ii)
MED. J. AUSTRAL.	
The Analeptic Effect of Succinate in Coma and in Confusional States. <i>Trautner, E. M., et al.</i>	848
VOL. 63	JANUARY, 1954
MIND	
Wittgenstein's Lectures in 1930-33. <i>Moore, G. E.</i>	1
The Concept of Evolution. <i>Goudge, T. A.</i>	16
How Specious is the "Specious Present"? <i>Mundle, C. W. K.</i>	26
On the Project of a Universal Character. <i>Cohen, J.</i>	49
VOL. 50	1953
MISS. MED.	
Neurologic Complications of Chronic Alcoholism. <i>Tureen, L. L., and Hahn, A. L.</i> ..	766
VOL. 38	1953
NEBR. ST. M. J.	
Psychosomatic Medicine—New Approach. <i>Barta, F. R.</i>	320
VOL. 97	1953
NEDERL. TIJD. GENEESK.	
Neurosyphilis. <i>Verjaal, A.</i>	1767
Internal and Psychosomatic Medicine. <i>van Balen, G. F., and Lindeboom, G. A.</i> ..	1823
Influence of Psychic Factors in Pathogenesis of Myocardial Infarction. <i>van Balen, G. F.</i>	2074

VOL. 249 NEW ENGL. J. M. 1953
 Psychiatric Research in a General Hospital. *Fox, H. M.* 351
 Importance of Psychologic Factor in Gynaecology. *Menzer, D.* 519

VOL. 3 NEUR. DECEMBER, 1953
 Revascularization of the Brain in Mental Defectives. *Jervis, G. A., et al.* .. . 871
 *Results of Transorbital Lobotomy in 400 State Hospital Patients. *Wilson, W. W., et al.* .. . 879
 Cerebral Lipoidal Granuloma. *Morello, A., and Cooper, I. S.* .. . 886
 *Effect of Themisone and Phenurone on Electrically-induced Seizures in the Salamander. *Peters, J. J., and Vonderahe, A. R.* .. . 890
 *Experimental Intraventricular and Intracerebral Injections of Polymyxin B in the Cat. *Teng, P.* .. . 896
 Neurocutaneous Syndromes in the M. Kindred. *Schull, W. J., and Crowe, F. W.* .. . 904
 Adie's Syndrome and the Adler-Scheie Mechohyl Test. *Sprofskin, B. E.* .. . 910
 C.S.F. Pressure Adjustment to Change in Body Position. *Fay, J., and Settlege, P.* .. . 916
 Tumors Arising Within the Spinal Canal in Children. *Ross, A. T., and Bailey, O. T.* .. . 922

Results of Transorbital Lobotomy in 400 State Hospital Patients

Four hundred cases of transorbital lobotomy are reported; there was marked improvement in approximately one-half of the cases and some improvement in another 25 per cent. of chronically disturbed patients.

The results according to diagnosis are indicated.

It is urged that this type of operation be considered for all chronically disturbed patients.

The economic advantages in the improvement of such a group are stressed.

(Authors' Abstr.)

Effect of Themisone and Phenurone on Electrically-induced Seizures in the Salamander

The behavior of salamanders during electrically-induced seizures is described in terms of an active and an inactive phase. Both Themisone and Phenurone inhibit the violent active phase of a seizure and diminish the duration of the stupor or inactive phase typically found in untreated salamanders. Phenurone acts more slowly but its effect lasts longer than that of Themisone. Themisone, unlike Phenurone, produces a temporary unsteadiness in gait and some sluggishness.

(Authors' Abstr.)

Experimental Intraventricular and Intracerebral Injection of Polymyxin B in the Cat

1. Twelve cats, including three controls, were used in this experiment.

2. In four cats, 2,500 or 5,000 units of polymyxin B in 0.05 cc. of normal saline solution were injected into the left lateral ventricle under Nembutal anesthesia. None of these cats showed any toxic neurologic reactions. Sections of the brains of these animals revealed no significant changes.

3. Five cats were given an intracerebral injection of polymyxin B, 2,500 or 5,000 units, into the left cerebral hemisphere. One cat was injected under sodium Nembutal and the other four without anesthesia. Only one animal developed a reaction; sections of the brain showed that the injection was in the left thalamus, internal capsule, and the region of the hypothalamus.

4. Pathologic examination revealed acute inflammatory changes in the leptomeninges and minimal hemorrhage in the early stage of the experiment, and softening and gliosis in the area of the intracerebral instillation in the later stage.

(Author's Abstr.)

VOL. 4 JANUARY, 1954

Role of the Brainstem in Blood Pressure Regulation in the Dog. *McQueen, J. D., et al.* .. . 1
 Some Innovations in Human Stereencephalotomy. *Delgado, J. M. R., et al.* .. . 14
 *Acquired Epilepsy. *Smith, B., et al.* .. . 19
 Effects of Vasodilatation on EEGs of Unanaesthetized Humans. *Morello, A., et al.* .. . 29
 *Clinical Evaluation of Pagitane Hydrochloride in Parkinsonism. *Dow, R. S., and Smith, G. N.* .. . 33
 Amyotrophic Familial Spastic Paraplegia. *Refsum, S., and Skillicorn, S. A.* .. . 40
 *Stimulation of the Amygdaloid Nuclear Complex in Unanaesthetized Cats. *Kaada, B. R., et al.* .. . 48
 Cerebral Angiography in Carotid Cavernous Communications. *Parsons, T. C., et al.* .. . 65

Acquired Epilepsy: A Study of 535 Cases

Records of 1,648 patients with a diagnosis of epilepsy were reviewed. Of these, 535, or 32.4 per cent. gave evidence of organic lesion of the brain acquired prior to the person's first seizure. In 52 per cent. the evidence for the pathologic change was believed conclusive, in 48 per cent. only probable. Of the 535 patients, 69 per cent. were private and 31 per cent. clinic patients, the latter being adolescent or younger.

Ninety per cent. of patients had the first seizure before the age of 20; 24 per cent. had a positive family history of epilepsy. Evidence for a cerebral lesion was furnished in largest

proportion, 88 per cent., by the patient's past history, with the electroencephalogram, description of seizures, neurologic examination, and pneumoencephalogram following in order of importance.

Causes of pathologic change were assigned as follows: prenatal 13.3 per cent.; natal conditions 30.1 per cent.; postnatal trauma 20.7 per cent.; infections 17.2 per cent.; other conditions 6.4 per cent.; and unassigned 12.3 per cent.

Data studied with respect to the patient's age at the first seizure showed a progressive decline of paranatal mishaps and progressive increase of postnatal traumatic conditions with increasing age. Nearly one-half of the cases, 46 per cent., had the initial seizure within 12 months after the first etiologic event. In 12 per cent. epilepsy did not arise until ten or more years later. The time interval separating etiology and epilepsy was shorter for postnatal trauma and infections than for paranatal conditions.

The distribution of causes differs radically from a previous series of older patients.

A comparison and coalescence of data from various sources with delineation of genetic and acquired factors is desired. (Authors' Abstr.)

Clinical Evaluation of Pagitane Hydrochloride in Parkinsonism

Irrespective of all the pitfalls of an analysis such as this on a relatively small number of patients, the authors' experience with this compound has allowed them to formulate the following conclusions which are in general agreement with published reports now appearing on the use of Pagitane hydrochloride.

1. This compound is an effective drug in reducing the rigidity and tremor encountered in Parkinsonism.

2. It can frequently be given in larger doses than similar compounds previously available, without producing unpleasant side reactions which would necessitate discontinuing medication.

3. A tendency is noted for some of the patients to report greater improvement soon after beginning therapy. This characteristic of Parkinsonism makes evaluation of the new remedy difficult.

4. As had been noted previously by others, those patients respond poorly to medical management who have Parkinsonism appearing late in life, in whom tremor is the predominant symptom, and who have been diagnosed as having central nervous system changes attributable to arteriosclerosis. In these patients, mental confusion is frequently produced and the drug, if used at all, must be given with great caution.

5. Best results were obtained in Parkinsonism of idiopathic or postencephalitic etiology. (Authors' Abstr.)

Stimulation of the Amygdaloid Nuclear Complex in Unanesthetized Cats

1. Electrical stimulation of the amygdaloid nuclear complex in unanesthetized cats has elicited complex somatomotor and visceromotor effects: contraversive movements, tonic and clonic movements of the extremities, licking, sniffing, chewing, and inhibition of respiratory and other spontaneous somatomotor activities; pupillo-dilation, salivation, micturition, defecation, and pilo-erection. These responses were obtained mainly from the phylogenetically old anteromedial division of the amygdaloid nuclei which receives fibers from the olfactory bulb and which projects to the septal, preoptic, and hypothalamic areas.

2. Stimulation of the phylogenetically younger basolateral division, which appears to have no direct connections with fibers from the olfactory bulb and whose efferent projections are unknown, produced behavior changes very similar to those obtained by stimulating the hippocampus and the medial prefrontal, limbic, retrosplenial, and hippocampal gyral cortices, indicating functional relationships between all these structures. This response consisted of searching movements to the contralateral side associated with bewilderment and anxiety, and sometimes with fear, anger, and fury.

3. The results are discussed in relation to temporal lobe seizures. It is believed that the amygdala plays an important role in certain types of epileptic automatisms. (Authors' Abstr.)

VOL. 14	NO. CAROL. M. J.	1953
Depressive and Anxiety Reactions Treated with Nicotinic Acid and Phenobarbital.		
Thompson, L., and Proctor, R. C.	.. .. .	420
Use of Pyrahexl in Treatment of Alcoholic and Drug Withdrawal Conditions.		
Thompson, L. J., and Proctor, R. C.	.. .. .	520
VOL. 50	NORD. MED.	1953
Anticoagulation Treatment in Cerebral Apoplexy. Stürup, H., and Fog, T.	.. .. .	1261
VOL. 52	N.-W. MED.	1953
Sobering Alcoholic Patients. Broz, W. R., and Tupper, W. E.	.. .. .	731
VOL. 49	OHIO S. M. J.	1953
Brain Wave Patterns and "Crystallized Experiences". Palmer, D. M., and Rock, H. A.	.. .. .	804
VOL. 56	PENNSYL. M. J.	1953
Treatment of Mental Disorders in Geriatric Patients. Conwell, D. V., and Kurth, C. J.	.. .. .	794

VOL. 67	PISANI.	1953
Transitory Variation in the Reactions of Wunderly, Gros and Ucko, etc. <i>Motta, E.</i> 155		
A Case of Myelo-polyneuritis with Paralysis after Treatment with ATP. <i>Motta, E.</i> 173		
Pyretovaccinia Therapy and Electro-thermal Treatment in Schizophrenia Resistant to ECT. <i>Micalizzi, F.</i> 185		
The Behaviour of the Sedimentation Rate in Schizophrenia, During the Menstrual Cycle. <i>Micalizzi, F.</i> 191		
Prognosis of Infantile and Juvenile Delinquency. <i>Pisani, D., and Micalizzi, F.</i> 199		
Clinical Aspects of Cerebellar Heredoatasia. <i>Sciorta, A., and Cipollina, G.</i> 239		
On the Rhythmic Succession of Oculogyric Crises in Encephalitic Parkinsonism. <i>Sciorta, A.</i> 285		
The Problem of Tubercular Etiology in Schizophrenia Considered in the Light of Treatment with Hydrazide of Iso-nicotinic Acid. <i>Loiacono, G.</i> 301		
Endemic Cretinism and Familial Optic Atrophy. <i>Smorto, G., and Sciorta, A.</i> 311		
The Hormone-Vitamin Association in Therapy of Mental Illness. <i>Tiganu, U.</i> 325		
VOL. 61	PR. MED.	1953
Sleep Therapy and Cure by Sleep as Psychiatric and Psychosomatic Therapeutics. <i>Delay, J., et al.</i> 1165		
Hypophysectomy in Man. <i>Détrie, P.</i> 1209		
VOL. 171	PRACTIT.	1953
Muscle Relaxants. <i>Marston, A. D.</i> 121		
VOL. 46	PROC. ROY. SOC. MED.	1953
Anorexia Nervosa. <i>Kay, D. W. K.</i> 669		
VOL. 16	PSYCHIAT.	NOVEMBER, 1953
A Study of the Incidence of Mental Disorder in Chinese and Other Cultures. <i>Lin, T.</i> 313		
Low Morale and Mutual Withdrawal on a Mental Hospital Ward. <i>Schwartz, M. S., and Will, G. T.</i> 337		
On Recognition of Resemblance. <i>Harris, I. D.</i> 355		
Written Communication in Psychotherapy. <i>Farber, D. J.</i> 365		
Notes on the Psychopathology of Delusions. <i>Bachrach, A. J.</i> 375		
Prestige Values in Contrasting Socioeconomic Groups of Children. <i>Pope, B.</i> 381		
Political Character and Political Analysis. <i>Lane, R. E.</i> 387		
VOL. 27	PSYCHIAT. QUART.	OCTOBER, 1953
Psychic Determinism and Responsibility. <i>Lowrey, L. G.</i> 543		
The Concept of the Unconscious. <i>Eidelberg, L.</i> 563		
Comments on Some Aspects of the Current Research Program of the New York State Psychiatric Institute. <i>Lewis, N. D. C.</i> 588		
Frustration-Aggression Hypothesis Extended to Socio-Racial Areas. <i>Hammer, E. F.</i> 597		
Psychotherapeutic Approach to Schizophrenics Through Insulin-Coma Treatment. <i>Annau, D.</i> 608		
Folie à Trois. <i>Bauer, F. C.</i> 624		
*Observations on 36 Patients with General Paresis Treated with Penicillin-Malaria and Penicillin Alone. <i>Cohn, W. M.</i> 637		
*Involutional Melancholia. <i>Barnett, J., et al.</i> 654		
Childhood Schizophrenia. <i>Bender, L.</i> 663		

Observations on 36 Patients with General Paresis Treated with Penicillin-Malaria and Penicillin Alone

1. Of 36 patients with general paresis, 18 were treated with penicillin-malaria and 18 with penicillin alone.
2. Choice and methods of treatment, as well as complications, were described.
3. The prognosis in the series presented was found to depend mainly on (a) duration of symptoms, (b) degree of intellectual impairment, (c) type of psychosis, (d) combination with tabes, (e) age. These findings confirm often-reported observations by others.
4. Satisfactory clinical results (much improved and improved) were achieved in 61.1 per cent. (11 patients) treated with penicillin-malaria and 27.7 per cent. (5 patients) treated with penicillin alone. Satisfactory serologic results (available for 33 patients only) were obtained in 94.1 per cent. (16 of 17 patients) in the combined group and in 81.2 per cent. (13 of 16 patients) in the penicillin-alone group.
5. The clinical failure rate was 22.2 per cent. (4 patients) for the patients treated with penicillin-malaria and 38.8 per cent. (7 patients) for the patients treated with penicillin alone; the serologic failure rate was 5.8 per cent. (1 of 17 patients) and 18.7 per cent. (3 of 16 patients) respectively.
6. Some superiority of the combined treatment remains even after allowance has been made for factors rendering the composition of the group treated with penicillin-malaria more

favorable. Penicillin alone, however, outranks the combined treatment with regard to safety, lack of complications, and ease of administration. (Author's Abstr.)

Involuntary Melancholia

1. The pre-psychotic personality of patients developing agitated depressions is described as the anal-compulsive character.
2. The development and characteristics of the anal character are outlined.
3. The agitated depressions are considered as the decompensation of an anal character.
4. The precipitating factors are considered to be traumata which prevent the maintenance of characteristically rigid ego defenses.
5. A differential comparison is made of the psychodynamics of the reactive and agitated depressions.
6. The psychopathology of the symptoms is related to the prepsychotic personality and its decompensation. (Authors' Abstr.)

VOL. 22	PSYCHO-ANAL. QUART.	1953
Factors in the Etiology of Fixations and Symptom Choice. <i>Johnson, A. M.</i>	.. .. .	475
The Hypnotic Evasion. <i>Fliess, R.</i>	.. .. .	497
A Note on Orgastic Loss of Consciousness. <i>Needles, W.</i>	.. .. .	512
A Dream of an Inhibited Writer. <i>Bunker, H. A.</i>	.. .. .	519
Food Allergies and Conversion Hysteria. <i>Sperling, M.</i>	.. .. .	525
Mark Twain's Osteopathic Cure. <i>Barrett, W. G.</i>	.. .. .	539
Evasive Speech as a Form of Resistance. <i>Evans, W. N.</i>	.. .. .	548
Psychology of the Audience in Relation to the Architecture of the Theater. <i>Friedman, J. L.</i>	.. .. .	561

VOL. 15	PSYCHOSOM. MED.	1953
Psychophysiological Properties of the Adrenal Cortex, Unpublished Advances—		
General Concepts of Adrenocortical Function in Relation to the Response to		
Stress. <i>Engel, F. L.</i>	.. .. .	565
Relation of Adrenocortical Activity and Adaptive Behavior. <i>Mirsky, I. A., et al.</i>	.. .. .	574
Psychic Effects of ACTH and Cortisone. <i>Goolker, P., and Schein, J.</i>	.. .. .	589
Psychological Responses ACTH and Cortisone. <i>Fox, H. M., and Gifford, S.</i>	.. .. .	614

VOL. 5	Q. J. EX. PSYCHOL.	NOVEMBER,	1953
Advance Information in Sensori-motor Skills. <i>Leonard, J. A.</i>	.. .. .		141
Fixations, Position Stereotypes and their Relation to the Degree and Pattern of Stress.			
Part II. <i>Knopfmacher, F.</i>	.. .. .		150
The Effect on a Difficult Co-ordination Task of the Frequency of Signals. <i>Day, R. H.</i>	.. .. .		159
Some Features of the After-contraction Phenomenon. <i>Hick, W. E.</i>	.. .. .		166
Tactile Localization. <i>Elihorn, A., et al.</i>	.. .. .		171
The After Effect of Seen Movement on a Plain Field. <i>Grindley, G. C., and Wilkinson, R. T.</i>	.. .. .		183

VOL. 14	Q. J. STUD. ALC.	DECEMBER,	1953
Alcohol, Beer and Wine as Foods. <i>Richter, C. P.</i>	.. .. .		525
Effect of Repeated Alcohol Administration on Adrenal Ascorbic Acid, etc. <i>Forbes, J. C., and Duncan, G. M.</i>	.. .. .		540
*Investigations on the Disulfiram-Alcohol Reaction. <i>Raby, K.</i>	.. .. .		545
Electrocardiographic Changes Following the Ingestion of Disulfiram and Alcohol.			
<i>Raby, K.</i>	.. .. .		557
*Hepatic Abnormalities in Alcoholics with Delirium Tremens. <i>Leevy, C. M., et al.</i>	.. .. .		568
Values Stressed by Two Social Class Levels at Meetings of Alcoholics Anonymous.			
<i>Murphy, M. M.</i>	.. .. .		576
Finding the Problem Drinker. <i>Page, R. C., and Hawkins, E. R.</i>	.. .. .		586
Attitudes of the Parents of Alcoholics, Moderate Drinkers and Nondrinkers toward			
Drinking. <i>Jackson, J. K., and Connor, R.</i>	.. .. .		596
*Driving Under the Influence of Alcohol. <i>Lester, D., et al.</i>	.. .. .		614
An Interpretation of Medical and Psychiatric Approaches in the Treatment of			
Alcoholism. <i>Vogel, S.</i>	.. .. .		620
Wives of Alcoholics. <i>Whalen, T.</i>	.. .. .		632

Investigations on the Disulfiram-Alcohol Reaction

Following the administration of disulfiram (tetraethylthiuram disulfide) and alcohol in various doses to 39 subjects, a reaction with a typical course was found in conformity with the reports of other investigators. In spite of the typical course, great individual dissimilarity was observed.

The symptoms reflect a radical process influencing several organs and systems of organs (the cardiovascular and respiratory systems and the gastrointestinal canal).

The cause is presumably the acetaldehyde formed in the organism but the mechanism is largely unknown.

Tests of cutaneous reaction showed no direct hypersensitivity to alcohol. The degree of the reaction released is to some extent dependent on the quantity of disulfiram administered. From a therapeutic view-point the administration of large doses has no advantages. (Author's Abstr.)

Hepatic Abnormalities in Alcoholics with Delirium Tremens

1. Aspiration biopsy of the liver in 66 patients with delirium tremens revealed a normal liver structure in 19 (29 per cent.), focal inflammation in 4 (6 per cent.), fatty infiltration in 20 (31 per cent.) and portal cirrhosis in 23 (35 per cent.).

2. Clinical and biochemical liver function studies did not provide a clue to the encountered histology. The dissociation between biochemical tests and histology suggested that the latter was not responsible for the observed liver function changes.

3. Hepatic abnormalities in delirium tremens appear to be due to dietary inadequacies. A diet deficient in lipotropic substances was associated with fatty infiltration and eventually led to fibrosis and portal cirrhosis. The degree of alcoholism and severity of cerebral symptoms could not be correlated with hepatic abnormalities.

4. Rehabilitation of the alcoholic patient is desirable to prevent progressive liver injury. The fatty liver is curable, and prognosis in patients with hepatic fibrosis and portal cirrhosis is improved with treatment. (Authors' Abstr.)

Driving Under the Influence of Alcohol. The Role of Chemical Tests in Appealed Cases

1. The role of chemical test evidence has been evaluated as the result of a study of pleadings, verdicts and dismissals in cases prosecuted for driving under the influence of alcohol.

2. In the cases examined, the concentrations of alcohol in the blood ranged from 0.14 to 0.40 per cent., indicating the consumption of more than $\frac{1}{4}$ pint of whisky or the equivalent amount of other alcoholic beverages.

3. The use of the Alcometer breath test to determine the concentration of alcohol in the blood resulted in a marked increase in pleas of guilty, from 23 to 61 per cent. This increase indicates an acceptance of the validity of the test by defendants, since the test result actually corresponds to what they know they had consumed.

4. There was a significant increase in convictions by both court and juries, from 58 to 83 per cent. This increase results from the confidence reposed by the court and juries in the chemical test and from the value of this test in corroborating other evidence.

5. The cases dismissed by the prosecutor for lack of sufficient evidence decreased from 22 per cent. to none when chemical test evidence was introduced. In addition to the confidence of the prosecutor in the reliability and corroborative value of the chemical test, this decrease results from the more effective screening by the police of cases not warranting prosecution.

6. The over-all rate of convictions rose from 55 to 93 per cent. when chemical test evidence was presented.

7. This evaluation of the disposition of 87 cases brought before the New Haven County Court of Common Pleas reveals the acceptance of the chemical test by all segments of the community as an effective means of convicting the guilty and protecting the innocent. (Authors' Abstr.)

VOL. 9	RASS. NEUR. VEG.	1952
Diabetic Infantile-Nanism. <i>Rossello del Turco, L., and Capone Braga, M.</i>	.. . . .	273
Inhibition of the Effect of Chorionic Gonadotropin upon the Genital Apparatus, etc. <i>Matteini, M., and Marabini, B.</i>	.. . . .	324
The Relation Between the Liver and Somatotrophic Hormones in Relation to the Genital Apparatus in the Secretion of Androgens. <i>Matteini, M., and Marabini, B.</i>	.. . . .	333
Experimental Data on the Antagonism Between Thymic Extract and ACTH. <i>Marabini, B., and Natali, G.</i>	.. . . .	341
Experimental Research on the Hepatic Inactivation of Cortisone. <i>Matteini, M., and Marabini, B.</i>	.. . . .	347

VOL. 10		1953
The Problem of the Association of Deformity of Dysraphic Type with Diencephalic and Hypophysial Dysfunction. <i>Vannucchi, V., et al.</i>	.. . . .	259
Neuroses as an Expression of Toxicosis from Koch's Bacillus. <i>Vivarelli, A., et al.</i>	.. . . .	335
The Index of Thorn in Neuroses Cured by Insulin Shock. <i>Vivarelli, A., and Quarneti, G.</i>	.. . . .	341
Inhibition of the Development of the Female Genital Apparatus and of Ovarian Secretion from the Prolonged Administration of Small Doses of Somatotrophic Hormone. <i>Matteini, M., and Giusti, G.</i>	.. . . .	348
The Analogy in Behavior Between STH and ACTH. <i>Marabini, B., and Natali, G.</i>	.. . . .	360

VOL. 42	RASS. STUDI. PSICHIAT.	1953
Some Cases of Periodic Schizophrenia. <i>Cossio, M.</i>	.. . . .	597
The Behaviour of Bodily Temperature in Narcotherapy. <i>Rizzo Ercole, M., and Binetti, P.</i>	.. . . .	620
Hematological Changes Caused by Largactil. <i>Rizzo Ercole, M., and Russo, S.</i>	.. . . .	632

The Occasional Positive Wasserman in the Cerebrospinal Fluid. <i>Tommasini, M.</i> ..	641
The Vaginal Cell-hormone Picture in Mental Disease. <i>Sacerdoti, G., and Vegro, G. R.</i>	651
The Superior Cerebello-peduncular Syndrome with Disturbance of the Personality in Psychosensory Epilepsy. <i>Vitello, A.</i> ..	672
The Sedimentation-Rate after the Introduction of Largactil. <i>Rizzo Ercole, M., and Russo, S.</i> ..	707
The "Phenomenon of Obstruction" of Donaggio During Treatment with the Serum of Bogomoletz. <i>Ronco, P.</i> ..	712
Alterations of the Neuraxis in Alloxan Diabetes. <i>Linoli, O.</i> ..	797
Leptomeningomelanoblastomatosis. <i>Barontini, F.</i> ..	827
Mental Disturbances in the Principal Hereditary Nervous Diseases. <i>Poggiali, A.</i> ..	847
Traumatic Pseudoglioma. <i>Bocci, G.</i> ..	956
Softening of the Left Supramarginal Gyrus. <i>Fattovich, G.</i> ..	969
The Application of the "Toedek" Test in Pulmonary Tuberculosis. <i>Marzi, F., and Biagiotti, F.</i> ..	985
Research on Test D-48. <i>de Franco, F.</i> ..	999
The Study of the Ovarian Cycle During Insulin-Electroshock. <i>Sagripanti, P., and Taverna, P.</i> ..	1014
Cutaneous Reactions in Mental Diseases. <i>Leoni, G.</i> ..	1025

VOL. 2	REV. LAT.-AM. PSIQUIAT.	JANUARY, 1953
Myokinetic Psychodiagnostics in Indications and Prognostic Therapy. <i>Coronel, C. G.</i>		12
The Mechanism of Convulsive Treatments. <i>Colodrero, J. D.</i> ..		21
Pneumoencephalography in Psychiatry. <i>Martin, W. C.</i> ..		32
Normality, Neurosis and Psychosis. <i>Doyle, I.</i> ..		45
Social and School Problems of Oligophrenic Girls. <i>Pedro Reyes, E.</i> ..		57
Conditioned Reflexes and Pedagogy. <i>Merani, A. L.</i> ..		60

APRIL

Organization of Psychiatric Services in Latin America. <i>Yahn, M., et al.</i> ..	4
---	---

JULY

The Examination of Conditioned Sleep Treatment. <i>Cervantes, G. M., et al.</i> ..	1
Treatment of Choice in Schizophrenia. <i>Bermann, G.</i> ..	11
Shock Treatment in Psychiatry. <i>Bermann, G.</i> ..	23
South American Seminar on Alcoholism. <i>Bermann, G.</i> ..	29
Problems of Alcoholism. <i>Jellinek, E. M.</i> ..	31
Infancy and Intelligence. <i>Manfredini, J.</i> ..	36
Soviet Psychiatry. <i>Wortis, J.</i> ..	47
Pharmacological Progress in Psychiatry. <i>Bleger, J.</i> ..	67

OCTOBER

Problems of Alcoholism. <i>Jacobsen, E.</i> ..	1
Surgical Cerebral Revascularization. <i>Cambior, G. F.</i> ..	14
Mental Hygiene in Santiago. <i>Bleger, J.</i> ..	27
Occupational Therapy and Child Psychotherapy. <i>Vinhaes, M. T.</i> ..	37
Urticaria and Nervous Conditions in Girls. <i>de San Martin, A. M., and de Coriat, L. F.</i>	42
Fundamental Principles of Social Psychiatry. <i>Bermann, G.</i> ..	48

VOL. 89	REV. NEUROL.	1953
The Results of Seventy-eight Psychosurgical Interventions. <i>David, M., et al.</i> ..		3
The Frequency of Apnoea at Birth in the Antecedents of Infantile Encephalopathy. <i>Tardieu, G., et al.</i> ..		22
Neurosurgical Experiences on the Pathology and Prognosis of Tuberculous Meningitis. <i>Verbiest, H.</i> ..		33
Considerations on Some Encephalomyelitic and Radiculoneuritic Syndromes. <i>Stanton, J.-B., et al.</i> ..		46
Cortico-strio-spinal Degeneration. <i>de Ajuriaguerra, J., et al.</i> ..		81
Radioactive Arsenic and its Operative Detection in Cerebral Tumours. <i>Benda, P., et al.</i>		101
Staphylococcal Epiduritis. <i>Morin, H.</i> ..		110
Wilson's Disease. <i>Heuyer, G., et al.</i> ..		165
A Case of Hypertrophic Neuritis Accompanied by Hemispherical Degeneration and Malformations. <i>Bertrand, I., et al.</i> ..		182
Myelopathy Slowly Following on a Fracture of the Odontoid Process with Atlanto-axial Luxation. <i>Barraquer-Bordas, L., et al.</i> ..		193
Diffuse Meningo-encephalitic Angioneuromatosis. <i>Hozay, J.</i> ..		222

VOL. 16	REV. NEURO-PSIQUIAT.	1953
Depressive States and Perceptive Organization. <i>Rotondo, H.</i> ..		145
Treatment by Electric Sensory Stimulation of Schizophrenia and Manic-depressive Syndromes. <i>Mendez, M. A., et al.</i> ..		159

1954]	BIBLIOGRAPHY AND EPITOME	789
	Psychological Factors in Psychosomatic Medicine. <i>Seguin, A.</i>	183
	Neurological Complications of Disseminated Lupus Erythematosus. <i>Jeri, R.</i>	193
VOL. 8	REV. PSICOL. GEN. APLIC.	1953
	Cognitive, Conative and Non-intellectual Intelligence. <i>Wechsler, D.</i>	7
	Originality as an Index of Human Personality. <i>Zaragüeta, J.</i>	21
	The Psychology of Government. <i>de Urmeneta, F.</i>	33
	The Clinical Problem of the Transference. <i>Steinbach, M.</i>	45
	The Bureau of Psychometry and Vocational Guidance of Cuba. <i>Lopes, M. B.</i>	67
	The Psychological Laboratory of Texas University. <i>Dallenbach, K. M.</i>	77
	"Scatter" in its Application in Psychopathology. <i>Pichot, P.</i>	175
	The Concept of Personality in Psychopathology. <i>Sacristan, J. M.</i>	207
	The Perception of Causality at a Distance. <i>Yela, M.</i>	227
	The Problem of the Involution of Intellectual Capacities. <i>Nysse, R.</i>	259
	The Chromatic Pyramid of Max Pfister. <i>Pinillos, J. L.</i>	265
VOL. 23	RIV. NEUR.	1953
	Periarthritis Nodosa. <i>Canestrini, L., and di Biagio, F.</i>	217
	Study of Rorschach Psychogram in Organic Brain Disorders. <i>Porta, V., and Marzuoli, U.</i>	241
	Catatonia due to Bulbocapnine. <i>Smisi, L., and Tonini, G.</i>	269
VOL. 74	RIV. PAT. NERV. MENT.	1953
	The Nosography and Histological Diagnosis of Primitive Papillary Tumours of the Brain. <i>Chessa-Perle, E.</i>	497
	Experimental Epilepsy by Ultrasound. <i>Cazzullo, C. L., and Guareschi, A.</i>	545
	Clinical Considerations of a Case of Progressive Anterior Poliomyelitis. <i>Palazzuoli, M.</i>	573
	The Long-term Results of General Paralysis Cured by Malaria. <i>Taddei, G., and Cossio, M.</i>	585
	Diencephalic Function and Retinitis Pigmentosa. <i>Lusso, A. G. B.</i>	599
	Motor Units in Normal and Paretic Subjects. <i>Pinelli, P.</i>	607
	Periodic Cerebellar Ataxia. <i>Rossini, R.</i>	651
	Rhythmic Myoclonic Syndrome During a Hemispheric Tumour. <i>Macchi, G.</i>	660
	Some Vasomotor Phenomena in Experimental Convulsive Seizures in Rabbits. <i>Barucci, M., and Mori, F.</i>	675
VOL. 50	ROCKY MOUNT. M. J.	1953
	Psychiatric Difficulties Associated with Eating. <i>Branch, C. H. H., and Reiser, D. E.</i>	728
VOL. 29	SEM. HOP.	1953
	Myoclonus Epilepsy of the Type of Dyssynergia Cerebellaris Progressiva of Hunt. <i>Amyot, R.</i>	2699
	Major Nosographic Laws of Positive Psychiatry. <i>Leconte, M.</i>	3387
VOL. 27	SO. AF. M. J.	1953
	Tuberculosis in Non-European Psychotics. <i>de Wet, J. S. du T.</i>	880
VOL. 46	SO. MED. J.	1953
	Cerebral Angiography. <i>Dein, I. O., et al.</i>	942
VOL. 46	TENNESSEE S. M. A. J.	1953
	Psychiatric Aspects of Geriatric Care. <i>Boswell, W. H.</i>	319
VOL. 49	TEXAS S. J. MED.	1953
	Role of Psychiatrist in Special Problems Confronting General Practitioner. <i>Ballich, N. L.</i>	640
VOL. 73	TIDS. NORSK. LAEGE.	1953
	Cushing's Syndrome and Accompanying Psychic Disturbances. <i>Laane, C. L.</i>	665
	Cerebral Complications in Acute Gastroenteritis in Infants. <i>Grønrik, E., and Skjelbred, P.</i>	670
VOL. 115	UGES. LAEG.	1953
	Prophylactic Treatment of Migraine Tested with New Preparation b-(2-diethyl-amino-ethoxy)Naphthalin. <i>Nielsen, T. D.</i>	1156
	Acute Cryptogenic Infantile Hemiplegia. <i>Brandt, S.</i>	1251
VOL. 4	U.S. ARM. FORCES M. J.	1953
	Psychiatry in Korean Campaign. <i>Glass, A. J.</i>	1387
	Military Aspects of Diagnosis of Epilepsy. <i>Colony, H. S., and Kahn, B. I.</i>	1412
	Treatment of Neurogenic Bladders with Banthine. <i>Fenno, R. M., and Dodson, D. D.</i>	1417
	Psychiatry in Korean Campaign. <i>Glass, A. J.</i>	1563

790	BIBLIOGRAPHY AND EPITOME	[July
VOL. 80	VIRG. MED. MO.	1953
Clinical Aspects of Barbiturate Intoxication. <i>Gayle, R. F., jun., and Gee, G. L., jun.</i> .. 560		
VOL. 49	WEST VIRG. M. J.	1953
Chloral Hydrate. <i>Moore, F. J.</i> 292		
VOL. 52	WISC. M. J.	1953
Recognizing Emotional Problems in Adolescent Girls. <i>Kline, C. L.</i> 482		

1. Biochemistry, Physiology, Pathology, etc.

Influence of Various Afferent Nerve Stimuli on the Composition of the Secretion of the Adrenal Medulla in the Cat. Euler, U. S. v., and Folkow, B. [*Naunyn-Schmiedeberg's Arch. exptl. Pathol. Pharmacol.*, **219**, 242 (1953).]

Compression of the carotid of cats in chloralose anesthesia produced in the venous blood of the adrenal 0.2 γ noradrenaline (I)/per kg. and min. which amounted to 56 to 90 per cent. (average 72) of the sum of (I) and adrenaline (II). After stimulation of the afferent ischiadicus or plexus brachialis the (I) production was 0.16 γ which amounted to 43 per cent. of the total. After electric stimulation of the splanchnic nerve the percentage of (I) was 73, in asphyxia 78. Conclusion: (I) and (II) are produced by different cell groups which are responding to specific stimuli.
A. E. MEYER (Chem. Abstr.)

The Schizophrenic Process; Animal Experiments with C¹⁴-Mescaline. Patzig, Bernhard, and Block, Wolfram. [*Naturwissenschaften*, **40**, 13 (1953).]

Review of experiments on feeding mice with radioactive mescaline and determination of the resultant distribution of it in the body.
B. J. C. VAN DER H. (Chem. Abstr.)

Strychnine as a Depressant of Primary Inhibition. Bradley, K., and Eccles, J. C. [*Nature*, **171**, 1061 (1953).]

It is demonstrated by experiments on low spinal cats under light nembutal anesthesia that the threshold for stimulation in the quadriceps nerve of group Ia components, which have excitatory action on homonymous motor neurons and inhibitory action on antagonistic motor neurons, is lower than that for group Ib components which have opposite effects. Selection of the proper stimulus permits the application of a nearly pure Ia afferent volley to the motor neurons of the antagonistic biceps-semitendinosus nerve, and the amount of inhibition produced is measured by the height of the reflex spike resulting from a single maximum afferent volley applied at various times following the preliminary Ia inhibitory volley. A subconvulsive dose, 0.09 mg. per kg., of strychnine diminishes and shortens the inhibition, and a further dose 0.08 mg. per kg., virtually abolishes the inhibition. Strychnine seems to have a specific depressant action on synaptic inhibition for this action is observed with doses which have no significant effect on synaptic excitation in a monosynaptic reflex. The action of strychnine in diminishing inhibition is discussed with relation to a postulated inhibitory transmitter substance (Brock *et al.*, *J. Physiol.*, **117**, 431 (1952)) and as an explanation of its convulsive activity.
J. A. BAIN (Chem. Abstr.)

Migraine as a Psychosomatic Disease. Campbell, Dorothy A. [*Trans. Ophthalmol. Soc. United Kingdom*, **71**, 361 (1951).]

Pathological and biochemical aspects are reviewed. There appears to be a disordered functioning of the adrenal and pituitary glands, leading to retention of NaCl and water. Sufficient amounts of urea given over a long period will lessen the frequency and severity of attacks.
W. C. TOBIE (Chem. Abstr.)

Urinary Excretion of 17-ketosteroids in Schizophrenics. Lingjaerde, O., and Støa, K. [*Tidsk. Norske Laegeforen.*, **69**, 181 (1949).]

Data on the excretion of 17-ketosteroids (I) by psychotic patients, mostly with schizophrenia (II), are tabulated and discussed. In most cases the values for (I) were normal but were sometimes very low, especially in the active and stuporous forms of (II).
W. C. TOBIE (Chem. Abstr.)

Multiple Sclerosis. Rademaker, G. [*Vorderingen Geneeskunst*, 1945-48, 343 (1949).]

A review and discussion, including the role of Cu, Co, I, F, and Mn deficiencies in diminishing resistance.
W. C. TOBIE (Chem. Abstr.)

A Tetanic Syndrome without Changes in Chemical Composition of the Blood in a Case of Juvenile Dementia Paralytica (Lissauer). Fahr's Idiopathic Perivascular Calcification. van Bogaert, L. [*Monatsschr. Psychiat. Neurol.*, **118**, 30 (1949).]

Mainly pathological with a discussion of the physical and chemical origin of perivascular calcifications in the brain.
W. C. TOBIE (Chem. Abstr.)

Levels of Blood Oxygenation of Blood in Schizophrenic Patients. Tsikhanshkaya, Z. S. [*Nevro-pathol. i Psikhiat.*, 17, No. 6, 33 (1948).]

Toluidine blue (I) acts as an oxidation-reduction indicator in staining hemoglobin (II) giving green-yellow at +100 mv., blue at -10 mv., to pinkish-violet at -70 mv., depending upon the degree of oxidation of (II). Of 60 normal subjects, the blood of 48 stained green (+50 mv.), that of the other 12 was in the positive range, blue-green to yellow-green. Over 400 determinations were made on the blood of 30 schizophrenic patients. The blood usually stained blue-green (-25 mv.). In catatonia, the potentials were very low, showing low oxygenation of (II). In 4 of 5 cases of chorea, oxidation levels were very high. The effects of intravenous honey injections on the hematology of schizophrenics are described. In 10 of 17 cases, the oxidation potentials of (II) were restored (temporarily?) to normal values, with clinical improvement.
W. C. TOBIE (Chem. Abstr.)

The Clinical Significance of Electrophoretic Studies of Cerebrospinal Fluid and Serum in Acute Anterior Poliomyelitis. Olderhausen, H. F. v., et al. [*Deut. Z. Nervenheilk.*, 170, 254 (1953).]

In the early stages of the disease α_1 - α_2 - and β - globulins were increased and albumin was decreased in serum, as measured by paper electrophoresis. In cerebrospinal fluid an increase in albumin and γ -globulin and a decrease in other fractions appeared after 2-4 weeks.
WARREN M. SPERRY (Chem. Abstr.)

Metabolic Disturbances and the Central Nervous System. Peters, Gerd. [*Deut. Z. Nervenheilk.*, 169, 446 (1953).]

Biochemical Studies on the Action of Nerves. VI. Cholinesterase in the Cerebrospinal Fluid. Okinaka, Shigeo, et al. [*igaku to Seibutsugaku (Med. and Biol.)*, 25, 10 (1952).]

Results are given of determinations of cholinesterase (I) of some 140 cerebrospinal fluids from normal and diseased humans. The enzyme activity was given as cu.mm. CO₂ evolved in 30 minutes at 37.5° per ml. cerebrospinal fluid. (I) Values varied from 4.8 (in Heine-Medin disease) to 182.0 (in spinal tumor) and were as follows: normal humans (10 cases), 16.9 ± 1.41; tuberculous meningitis (16 cases), 38.8 ± 12.4; poliomyelitis anterior (18 cases), of which 4 showed normal values and 14 decreased activities (11.1 ± 4.17); brain tumors (12 cases), of which 4 showed decreased activities and the others more or less increased activities (the highest value, 151.0, was observed in Hippel-Lindau disease). The significance of these results in clinical diagnosis was discussed.
M. NAKAMURA (Chem. Abstr.)

Phosphatase and Nucleic Acids in Centers of Cerebral Hemorrhage. Gherarducci, D. [*Sistema nervoso*, 4, 518 (1952).]

In 6 rabbits injected with paraffin oil a constant increase of phosphatase, a decrease of the ribonucleic acid, and no change of the thymonucleic acid were observed in the centers of cerebral hemorrhage.
C. SCANDURA (Chem. Abstr.)

17-Ketosteroid Changes in Cerebral Apoplexy. Gherarducci, D. [*Sistema nervoso*, 4, 520 (1952).]

The 24-hour urinary 17-ketosteroid excretion was normal or greater than normal (maximum 25 mg.) in 19 patients.
C. SCANDURA (Chem. Abstr.)

Acetylcholine in the Cerebrospinal Fluid (CSF) of Neuropsychic Patients. Poloni, A., and Maffezzoni, G. [*Cervello*, 28, 15 (1952).]

The following observations were made: (1) The absence of acetylcholine (1) in the CSF of patients with progressive paralysis had no connection with luetic antibodies, albumin, globulins, and cell elements; (2) (1) was higher in epileptic patients before the convulsion and decreased thereafter; (3) the CSF of schizophrenic patients showed no (1); (4) in paraphrenic patients the presence of (1) was observed; (5) the brain fluid showed more (1) than the spinal fluid in nonschizophrenic patients; (6) acetylcholine administration to schizophrenic and non-schizophrenic patients caused an increase of (1); (7) electroshock (e.s.) raised (1) in non-schizophrenic patients, and lowered it in the schizophrenic ones; (8) paraphrenic patients showed a decrease of (1) after electroshock; (9) (1) increased in schizophrenic patients during insulin therapy; (10) in recovered schizophrenic patients (1) appeared; (11) in recovered schizophrenic patients e.s. lowered (1), and this response was not influenced by a previous treatment with pregnenolone.
G. SCANDURA (Chem. Abstr.)

Lactic Acid of Blood and Pyruvic Acid of Blood in Schizophrenia. Torre, L. Dalla, et al. [*Lavoro neuropsichiat.*, 10, 3 (1952).]

In 20 patients the average lactic and pyruvic acid contents of blood were 16.95 and 1.54 mg. per cent. respectively.
C. SCANDURA (Chem. Abstr.)

Fluorescence Quantitative Spectrophotometry of Cerebrospinal Fluid (CSF) in Schizophrenia. Salvi, P., and Zara, E. [*Acta Neurol.*, 7, 49 (1952).]

The fluorescence spectrum (ultraviolet excitation) of the CSF of schizophrenic patients was nearly normal but less intense, especially in the violet band where the intensity was nearly 70 per cent. that of normal CSF. This is interpreted as a low concentration of pterin compounds.
C. SCANDURA (Chem. Abstr.)

The Roles of Emotional Stress and Diet in the Etiology of Diabetes Mellitus. Simon, Norman M., and Mirsky, Stanley. [*Quart. Bull. Northwestern Univ. Med. School*, 27, 126 (1953).]

Anxiety produced by electric shock, in combination with a high-fat diet, significantly increased the blood glucose of rats without producing clinical diabetes. The role of emotional stress in the etiology of diabetes mellitus in man is probably that of a triggering mechanism that may set off the chain of pathological reactions in individuals predisposed by dietary or other factors.
MARION HORN PESKIN (Chem. Abstr.)

Fever and Brain Metabolism. Tasaka, Sadataka and Ishihara, Makoto. [*Igaku to Seibutsugaku (Med. and Biol.)*, 26, 266 (1953).]

During fever, the production of pyruvic and lactic acids were increased in the brain tissue.
M. NAKAMURA (Chem. Abstr.)

The Effects of Carbon Dioxide Inhalation upon the Cerebral Blood Flow and Cerebral Oxygen Consumption in Vascular Disease. Novack, Paul, et al. [*J. Clin. Invest.*, 32, 696 (1953).]

The effects of inhalation of 5 per cent. CO₂ upon the cerebral circulation of individuals with varying degrees of vascular disease were studied. The normal response to an elevation of arterial pCO₂ is a slight increase in the mean arterial blood pressure and a drop in cerebrovascular resistance with a consequent increase in cerebral blood flow. A group of normotensive arteriosclerotic individuals failed to show significant decrease of the cerebrovascular resistance, although the cerebral blood flow increased slightly. A small group of uncomplicated essential hypertension cases responded normally to CO₂ inhalation. A group of hypertensive arteriosclerotic patients responded normally to CO₂ but the residual cerebrovascular resistance after CO₂ vasodilation was still markedly above normal. The response to CO₂ inhalation seems to provide a convenient means for dissociating and establishing the components of an increased cerebrovascular resistance attributable to functional vasoconstriction and arteriosclerotic narrowing of the lumen of the vessels.
JOHN T. MYERS (Chem. Abstr.)

Cerebral Circulation and Metabolism in Pulmonary Emphysema and Fibrosis with Observations on the Effects of Mild Exercise. Scheinberg, P., et al. [*J. Clin. Invest.*, 32, 720 (1953).]

Cerebral blood flow, O consumption, and vascular resistance were measured in 22 patients with chronic pulmonary disease of moderate functional severity, and compared with normals of the same age. The effect of mild exercise was studied in 12 of the patients. There was no significant difference in cerebral blood flow measured by the intermittent sampling technique as compared to continuous sampling. Mean values for cerebral blood flow, cerebral arteriovenous O difference, cerebral O consumption, and cerebral vascular resistance did not differ in patients and normals. The correlation between cerebral blood flow and arterial pCO₂ was good, whereas no correlation was found between cerebral blood flow and arterial pO₂ or percentage arterial O saturation. The effect of exercise was variable. A reduction in arterial pH during exercise did not influence cerebral blood flow.
JOHN T. MYERS (Chem. Abstr.)

Lipide dystrophic Changes in the Central Nervous System in Dogs. Hagen, L. O. [*Acta Pathol. Microbiol. Scand.*, 33, 22 (1953).]

The histological and clinical picture is described in 2 dogs with lipide dystrophy of the central nervous system. The changes consisted of deposition of complex lipides in the neuron cells in the brain and retina, producing among other things, blindness. The lipides, according to their solubility and biochemical reactions, seemed to be largely phosphatides. There was a pronounced gliosis in the cerebellum, loss of cells in the granular cells, and loss of Purkinje cells. The changes closely resemble those of amaurotic familial idiocy in man.

JOHN T. MYERS (Chem. Abstr.)

Apparent Significance of Melanin in the Substantia Nigra. Friede, Reinhard. [*Naunyn-Schmiedeberg's Arch. exptl. Pathol. u. Pharmakol.*, 218, 286 (1953).]

The ganglion cells of the substantia nigra are able to form melanin from adrenaline. The pigment disappears in parkinsonism. Parkinsonism responds to sympathomimetic and parasympatholytic drugs. Melanin is related to a process of metabolism of tyrosine derivatives.

A. E. MEYER (Chem. Abstr.)

Microchemical Studies of the Nervous System. X. Cerebrosides of Nerve during its Degeneration. May, Raoul Michel and Thillard, Marie Jeanne. [*Bull. soc. chim. biol.*, 35, 307 (1953).]

The cerebrosides of the sciatic nerve (dog) increased 60 per cent. or more during the first 3 days after section, then decreased to about half the presection value in the next 9 days. There was little change thereafter.

L. E. GILSON (Chem. Abstr.)

Changes of Lipide Phosphorus in Blood Induced by Electrical Stimulation of the Hypothalamus of Rabbits. Inoue, Kazumasa. [*Osaka Daigaku Igaku Zasshi*, 5, 457 (1953).]

The concentration of lipide P in blood (1) was 2.76 to 13.74 mg. per cent. in 35 normal fasted rabbits. After the stimulation of the ventromedial hypothalamic nucleus, the concentration of (1) decreased in 8 cases, increased in 5 cases and remained unchanged in 2 cases out of all 15 animals. These changes were observed within 1 hour after the stimulation. By the stimulation of the lateral hypothalamic nucleus, the concentration of (1) increased in 11 cases

out of 15, remained unchanged in 3, and decreased in one case. These increases were produced within 2 hours after the stimulation and the maximum increment was 1.38 to 4.08 mg. per cent.
ITIRO TYUMA (Chem. Abstr.)

Brain Metabolism during Acclimatization to High Altitude. Albaum, Harry G., and Chinn, Herman L. [*Am. J. Physiol.*, **174**, 141 (1953).]

Acclimatization of rats to lowered barometric pressure equivalent to 11,000, 18,000, and 22,000 ft. did not alter significantly the levels of the brain constituents determined. In rats breathing N for 3 minutes, the brain adenosine triphosphate (ATP), adenosine diphosphate, phosphocreatine, organic P, and glycogen decreased while the inorganic P, lactic acid, and adenylic acid increased. No change in the activity of brain cytochrome oxidase was apparent after acclimatization. The rate of P^{32} incorporation into brain ATP was unaltered after acclimatization.
E. D. WALTER (Chem. Abstr.)

Mitochondrial Preparation from Mammalian Brain. Brody, T. M., and Bain, J. A. [*J. Biol. Chem.*, **195**, 685 (1952).]

Differential centrifugation in 0.25 M sucrose of homogenates of rat or rabbit brain yields a fraction (I) having histological, chemical and metabolic properties similar to those of liver mitochondria. (I) Oxidizes at high rates the majority of the Krebs citric acid cycle intermediates and glutamate. With the addition of an adenine nucleotide (either adenosine triphosphate, adenosine diphosphate, or adenylic acid) and of yeast hexokinase associated phosphate uptake, with P:O ratios of 2.5 to 3.0, is demonstrated. (I) Does not oxidize at appreciable rates alanine, aspartate, or octanoate, nor does it exhibit any glycolytic activity.
J. P. DANEHY (Chem. Abstr.)

Attempt at a Theory of Cellular Excitability. Nervous Flux; Automatism. I. Gibert, Rene. [*J. chim. phys.*, **49**, 448 (1952).]

A system of 4 schematic chemical equations is set up in such a way that their kinetic behavior would show precise analogy to certain aspects of the behavior of excitable matter. In particular, it obeys the "all-or-nothing" law necessary to account for the discharge of impulses by nerve cells. Only broad specifications can be given for the nature of the chemical entities postulated. The relations among reaction velocities and among concentrations necessary to cause the system to return to its initial state, and thus to account for the phenomena associated with automatism, are discussed.
T. H. DUNKELBERGER (Chem. Abstr.)

A Comparative Study of the Lipide Composition of the Brain in Various Vertebrate Classes. Bieth, R., and Mandel, P. [*Experientia*, **9**, 185 (1953).]

Analysis of total lipides, phosphatidic fatty acids, and sphingomyelin of the brains of carp, turtle, duck, domestic fowl, rat, guinea pig, cat, dog, and man shows an increase in the ratio of these to the species characteristic quantities of deoxyribonucleic acid of the diploid chromosome group; this increase is regarded as parallel to phylogenetic position.
D. S. FARNER (Chem. Abstr.)

Amyotrophic Lateral Sclerosis. Spies, T. D., and Stone, R. E. [*Southern Med. J.*, **42**, 410 (1949); *Excerpta Med.*, Sect. VIII, **2**, 916 (1949).]

In 5 cases (without anemia), injections of vitamin B₁₂ decreased muscle cramps and fibrillation and briefly delayed the progress of the disease, but without improvement in the abnormal physical signs.
W. C. TOBIE (Chem. Abstr.)

Quantitative Determination of Ribonucleic Acid from Individual Nerve Cells. Edstrom, Jan Erik. [*Biochem. et Biophys. Acta*, **11**, 300 (1953).]

A method is described for the determination of ribonucleic acid (RNA) in individual nerve cells; this method involves dissection of fixed cells into individual cells, determination of the cell volume, extermination of the cell with buffered ribonuclease solution and microspectrophotometric est of the (RNA) content of the extract. The accuracy of the method applied to fixed nerve cells of size $20 \times 10^3 - 60 \times 10^3 \mu^3$ is at least ± 4 per cent. The mean (RNA) concentration of 12 individual motor anterior horn cells was 0.67 ± 0.10 per cent., values for individual cells varying from 0.18 to 1.29 per cent.
MORTON PADER (Chem. Abstr.)

Acetylcholine in the Brain in Various Functional Stages. Herken, Hans and Diether, Neubert. [*Naunyn-Schmiedebergs Arch. exptl. Pathol. Pharmacol.*, **219**, 223 (1953).]

Killing rats with liquid air offers no advantage in the determination of acetylcholine (I) as compared with other methods. No change in the (I) was found in electroshock, metrazole, or schilliroside convulsions. Narcosis causes a marked increase in (I). The same effect of intravenous injection of eserine is based on a different mechanism. Metrazole can normalize the (I) content in narcosis. Prostigmine causes a slight increase. p-Nitrophenyl diethyl phosphate (II) produces an increase at the same rate as eserine. The symptoms of poisoning by (II) in mice are prevented by pretreatment with some hexachlorohexanes.
A. E. MEYER (Chem. Abstr.)

Structural and Cytochemical Modifications in the Anterior Radicular Cells of the Spinal Medulla of Fatigued Animals. Mangione, Francesco. [*Rass. Med.*, **30**, 53 (1953).]

Radicular spinal cells of the cervical and lumbar-sacral segments of fatigued rats showed a progressive decrease in cytoplasmic ribonucleic acid. The amount of decrease depended on the extent of fatigue. The ribonucleic acid was restored during the resting phase. In extreme fatigue, the nucleolus maintained the normal amount of ribonucleic acid while its deoxyribonucleic acid diminished. Thus the fulcral role in cellular protein synthesis played by the nucleolus was put in evidence. The experimental observations were carried out by means of known staining reactions of the chromophilic substance of the cells. P. T. IZZO (Chem. Abstr.)

Ocular Phenomena of Postencephalitic Parkinsonism. Crow, J. [*Glasgow Med. J.*, **30**, 29 (1949); *Excerpta Med.*, Sect. VIII, 2, 911 (1949).]

Pathological features of 80 cases are described. Inhalation of iso-Amnitrite failed to produce oculogyric crises, hence these crises probably result from vestibular action rather than emotional stimulation. W. C. TOBIE (Chem. Abstr.)

Autolysis in Normal and Pathological Cerebrospinal Fluids. Kovacs, Ernest. [*Can. J. Med. Sci.*, **31**, 358 (1953).]

The acid-solution P concentrated of 850 specimens of cerebrospinal fluid (CSF) was determined before and after incubation under standardized conditions. P changes resulted from interaction of enzymes and P-containing organic material in the CSF. Normal CSF, and a large number of poliomyelitis specimens, exhibited no P changes after incubation. In the CSF of acute bacterial meningitides a great increase of P usually occurred and a great increase was found in active neurosyphilis. The CSF of idiopathic epileptics and of patients with post-traumatic syndrome showed high P release. The CSF in cases of brain tumor manifested moderate changes. A. E. TERRI (Chem. Abstr.)

Antidiuretic Action of Cerebrospinal Fluid. Butturini, U., and Marinoni, U. [*Riforma med.* **63**, 193 (1949); *Excerpta Med.*, Sect. VIII, 2, 903 (1949).]

In human and bovine cerebrospinal fluid (I) the spinal fluid had more antidiuretic action (II) than the cerebral fluid, contrary to other reports. The (II) of (I) is probably identical with that of the posterior-pituitary gland. However, (I) also contains a diuretic substance and one influencing Cl metabolism. The action of (I) on urine flow probably results from 2 antagonistic hormones of pituitary origin. W. C. TOBIE (Chem. Abstr.)

A Chemical Phase in the Transmission of Nervous Effects. Dale, Henry. [*Endeavour*, **12**, 117 (1953).]

For some 50 years, evidence has been accumulating which indicates that transmission across cell junctions occurs by chemical means, and that a principal agent involved is the ester acetylcholine. The history of the subject is surveyed. S. TOLANSKY (Chem. Abstr.)

The Nervous Impulse. Spadoline, I. [*Sistema nervoso*, **1**, 3 (1949); *Excerpta Med.*, Sect. VIII, 2, 891 (1949).]

A review and discussion, including a new theory of electrochemical transmission in synapses. W. C. TOBIE (Chem. Abstr.)

The Cerebral Circulation and Metabolism in Arteriosclerotic and Hypertensive Cerebrovascular Disease, with Observations on the Effects of Inhalation of Different Concentrations of Oxygen. Heyman, Albert, et al. [*New Engl. J. Med.*, **249**, 223 (1953).]

The mean cerebral blood flow was somewhat less in older control subjects than in young healthy patients and was greatly reduced in patients with cerebrovascular accidents. The cerebral O consumption was reduced markedly by chronic cerebrovascular disease, but only slightly reduced by a single acute vascular accident, and was slightly less in the older than in the younger group of healthy persons. Cerebral blood flow in patients with cerebrovascular accidents was reduced by administration of 85-100 per cent. O, but little affected by administration of 50 per cent. O. The O uptake of the brain was unaffected by O administration at either level. Because of the vasoconstrictive effect of 100 per cent. O inhalation, use of this concentration in patients with cerebrovascular accidents should probably be avoided. MARION HORN PESKIN (Chem. Abstr.)

Poliomyelitis-like Cerebrospinal-fluid Findings in Cattle from Farms with Cases of Human Infantile Paralysis. Frauchiger, E., and Schmid, G. [*Schweiz. med. Wochschr.*, **79**, 316 (1949).]

Pathological changes, including increased cell count and protein content, as well as changes in sugar content, are described. W. C. TOBIE (Chem. Abstr.)

Pathology of the Meninges in Relation to the Hematoencephalic Barrier. I. Small Arachnoidal Plaques. Dina, M. A. [*Riv. sper. freniat. e med. legale alienazioni mentali*, **72**, 293 (1948).]

The plaques originate from protein thesaurismosis, and consist of a hyaline substance, osteoid. They are rarely calcified. W. C. TOBIE (Chem. Abstr.)

A Case of Familial Recurrent Paralysis. Study of Potassium Metabolism. Malaguzzi-Valeri, C. [*Progr. med. (Naples)*, 5, 83 (1949); *Excerpta Med., Sect. VIII*, 2, 924 (1949).]

Serum K was low (14-16 mg. per cent.) and at the beginning of an attack decreased to 6.07 mg. per cent. After injection of adrenal cortex extracts it dropped to 9 mg. per cent. and remained at this level for 2 hours without causing symptoms. This indicates that the muscle K is of main importance, not the blood K. After 5 g. of KCl orally, blood K increased to a maximum of 19.52 mg. per cent. after 2 hours, then decreased. The tissues appeared to be "thirsty" for K salts. Giving KCl after adrenocortical extract increased the blood K only slightly. The role of K in muscular contraction is discussed. Low K levels may be associated with insulin coma and with the asthenia accompanying infectious diseases. Paralysis from low K levels can be produced experimentally.

W. C. TOBIE (Chem. Abstr.)

Sarcoma Caudae Equinae with Hypothalamic and Bulbar Disturbances (Syndrome of Simmonds). Brouwer, B., and Posthumus Meyjes, F. E. [*Proc. Acad. Sci. Amsterdam*, 51, 285 (1948); *Excerpta Med., Sect. VIII*, 2, 921 (1949).]

Pathological features in a girl of 14 are described. There was diabetes insipidus, but disturbances of carbohydrate metabolism were not present, showing that in chronic lesions the paraventricular nuclei may be seriously damaged without producing glycosuria or hypoglycemia.

W. C. TOBIE (Chem. Abstr.)

Prognosis of Injuries of the Skull, Based on Examination of the Cerebrospinal Fluid. Guszich, A. [*Orvosi Hetilap*, 90, 216 (1949); *Excerpta Med., Sect. VIII*, 2, 903 (1949).]

The cerebrospinal fluid (I) normally contains no NH_3 (II) but (II) appears in states of excitation (III). When (III) is localized in the brain stem, the amount of (II) is 0-120 γ per cent.; when (III) reaches the cortex the (II) concentration is 450-500 γ per cent. in infants and children and 1,500-3,000 in adults. Determination of (II) in (I) is helpful in the localization of nervous lesions and in prognosis. Average amounts of (II) (in γ per cent.) are: in concussion 112-1,420 (in fatal cases 1,500-1,900); in contusion 781-1,650; in 2 fatal cases of cerebral peduncle hemorrhage 97-112; in subdural hematoma 70-240; in indentation of the skull 790-1,250. In fractures of the base of the skull with unconsciousness, the amount did not exceed 1,390 γ per cent.; in fatal cases 1,260-3,050. Amounts of (II) of 110-120 γ per cent. may indicate lesions of the midbrain and brain stem and may be as serious as values above 1,800. With values above 2,000 γ per cent. the prognosis is bad.

W. C. TOBIE (Chem. Abstr.)

Glycolysis in the Brain. Lenti, C. [*Boll. soc. ital. biol. sper.*, 28, 1969 (1952).]

Brain homogenate does not produce more lactic acid from glucose in the presence of ferrous sulfate or of glutathione than from glucose alone.

M. ELLIOTT (Chem. Abstr.)

A General Method for the Preparation of Cerebrosides. Uzman, L. Lahut. [*Arch. Biochem. Biophys.*, 45, 149 (1953).]

A new method applicable to spleen and brain tissue for the large-scale preparation of cerebrosides is described. It involves the extraction of total lipides from fresh tissue with a boiling CHCl_3 -MeOH mixture and isolation of the cerebrosides by virtue of their property of accumulating at the interface when diluted $\text{Cl}_2\text{CCO}_2\text{H}$ is added to the lipide extract. Cerebroside preparations thus obtained account for 65-75 per cent. of the total tissue cerebrosides. Infrared absorption spectra are presented for preparations from cattle brains and from 3 spleens from patients with Gaucher's disease.

FELIX SAUNDERS (Chem. Abstr.)

The Concept of a Damping Effect and its Applications in Nervous Physiology. Monnier, A. M. [*Anales inst. farmacol. españ. (Madrid)*, (1) 99, (1952).]

Discussion of a new characteristic nervous function based on the physical concept of "amortissement" (damping?) (1). It represents the stability of the nerve, its opposition to activation by external or spontaneous stimulation. It is measured by applying to the nerve 2 electrical stimuli separated by a variable interval. The first stimulus is adjusted to a sub-minimal value so that no response is evoked. The second stimulus is applied at varying intervals. The intensity of the second stimulus is adjusted each time to obtain a response. There is plotted the intensity of the second stimulus as a function of the interval separating it from the first stimulus. The effects of Ca^{++} deficiency, narcotics, chemical mediators, and CO_2 have been determined (1) is related to the membrane potential of the nerve and is suggested as an indirect measurement that can be performed *in situ* without necessitating electrodes in contact with the nerve. Superiority of (1) as a diagnostic technique over classical procedures is claimed because of the short duration of current flow and the minimal alteration of tissue during the test.

HERMAN I. CHINN (Chem. Abstr.)

Effect of Cortisone and Deoxycorticosterone (DOC) on Carbohydrates in the Brain. Vaccari, F., and Rossanda, M. [*Boll. soc. ital. biol. sper.*, 27, 734 (1951).]

Normal and adrenalectomized rats were treated with cortisone and DOC, and the brain glycogen was determined. The average values were 1.640 mg./g. in controls, 1.206 in adrenalectomized rats, 1.379 in DOC-treated adrenalectomized rats, and 1.425 in cortisone-treated adrenalectomized rats. In normal rats, the total brain carbohydrate was 5.217 mg./g.

in controls, 5.250 in DOC-treated, and 5.256 in cortisone-treated rats; the corresponding figures for adrenalectomized rats were 4.760, 4.680, and 5.600 mg./g., respectively. Thus, cortisone exerts an effect on carbohydrate metabolism in the brain, but DOC does not.

B.A. (Chem. Abstr.)

Binding of Acetylcholine. Brodtkin, E., and Elliott, K. A. C. [Am. J. Physiol., 173, 437 (1953).]

Maximum stability of the bound acetylcholine (ACh) in brain suspensions is found at about pH 7. The rate of breakdown increases rapidly above pH 8 and below pH 6. The rate of breakdown of bound ACh in brain is greatly accelerated, especially initially, by suspension in hypotonic medium and by high concentrations of K, Ca, or Mg ions. The presence of eserine seems to decrease the breakdown appreciably. The increased ACh content of normal brain slices incubated aerobically in the presence of glucose is accounted for mainly by bound ACh, which is extracted by acid but not by neutral medium. The bound ACh in brain suspensions is increased by the presence of ACh (30 γ /ml.) in the medium. Heart- and skeletal-muscle suspensions bind ACh slightly. No binding was detected with liver, kidney, or testis suspensions. Convulsant and narcotic drugs tested (other than ether) exerted no effects on liberation or binding of ACh by brain suspensions.

E. D. WALTER (Chem. Abstr.)

A New Chamber for Fixation of the Chemical Composition of the Brain of Rats in the State of Conditioned-reflex Block and Stimulation. Vladimirova, E. A. [Doklady Akad. Nauk. S.S.S.R., 90, 1191 (1953).]

The apparatus consists of a Plexiglass cylinder whose bottom is an electrode plate made of thin Cu strips. The top contains openings for ventilation. The cylinder is provided with side doors for passage of the animal to side chambers in response to stimuli. The bottom plate electrode can be excited to 15-20 v. for the nonconditioned stimulus. Photographs of the apparatus in use are shown and its use described in detail. For brain examination the apparatus is placed above a chamber with liquid O₂, into which the animal can be dropped instantly for fixation of the chemical composition of its brain. During the 1st 15 seconds of stimulation there is observed a rise in NH₃ in the cerebrum and a decrease during a longer stimulation (10 minutes). With conditioned-reflex block of the central nervous system for 120 seconds the content of NH₃ in the cerebrum dropped by 19 per cent. below normal. With stimulation of central nervous system there is an increase of 64 per cent. of NH₃ in rats that had been artificially waked from sleep; this was a 228 per cent. increase over the level found during normal sleep.

G. M. KOSOLAPOFF (Chem. Abstr.)

Effect of a Brain Fraction on Serum Cholesterol and the Serum-lipide Pattern. Gordon, Robert B., et al. [J. Lab. Clin. Med., 41, 583 (1953).]

Sheep brains were extracted with acetone and petroleum ether to yield a 0.312 per cent. cholesterol residue. This was fed to cockerels on high- and low-cholesterol diets and total cholesterol, total lipide, phospholipide, and ultra-centrifuge pattern determined after 14 days. On the low-cholesterol diet the controls lowered the serum cholesterol from 124 to 119 mg. per cent. while those fed the brain extract lowered from 124 to 104 mg. per cent. over the 14-day period. The final total lipide and phospholipide averaged 385 and 163 mg. per cent. in the controls compared to 382 and 143 mg. per cent. in those fed the extract. On the high-cholesterol diet the total cholesterol changed from 150 to 698 mg. per cent. in controls and from 139 to 306 mg. per cent. in those fed the extract. The total lipide was 1,444 mg. per cent. in the controls and 736 mg. per cent. in the extract-fed chickens. The phospholipide was 292 in the controls and 164 mg. per cent. in the extract-fed. Ultracentrifuge patterns showed reduction in the large peak in the S_r 20-70 range to half the control value. The authors feel that brain extract promotes the conversion of cholesterol to unabsorbable coprosterol in the bowel; this removes cholesterol from the body.

FRANK IBER (Chem. Abstr.)

The Action of Nervous Depressants on the Antidiuretic and Chloruretic Effects of Nicotine. Supek, Z., and Eisen, V. [Arch. intern. pharmacodynamie, 93, 75 (1953).]

In hydrated rats, nicotine base (1.7 mg./kg.) produced an antidiuretic and pronounced chloruretic effect. Tetraethylammonium, diparcol, parpanit, pentamethonium, procaine, and atropine did not affect the excretion of water or Cl ions, either alone or after nicotine. Phenobarbital (130 mg./kg.) inhibited the antidiuretic effect of nicotine, and urethan increased it. The chloride excretion was increased by phenobarbital and not affected by urethan.

M. L. C. BERNHEIM (Chem. Abstr.)

Blood-iron Curves in Cases of Amentia and Schizophrenia. Ferroni, A., and Lipani, G. [Acta Neurol. (Naples), 3, 568 (1948).]

Intravenous injections of ferrocalcium or ferronascine (containing 7 mg. Fe) were made in 4 imbeciles and 24 schizophrenics. The former had a fairly normal serum-Fe response. Chronic schizophrenics showed retarded absorption of Fe. In acute (particularly hebephrenic) schizophrenia the serum-Fe was below normal both before and after the injections. In acute catatonia the differences from the normal were less marked. The paranoid cases showed deviations which were difficult to interpret.

W. C. TOBIE (Chem. Abstr.)

Psychophysical Correlations. VI. Experimental Investigation of the Problem of Schizophrenia. Mescaline Toxicosis and Liver Function. Georgi, F., et al. [*Schweiz. med. Wochschr.*, **79**, 121 (1949).]

In normal subjects, administering mescaline decreases the amount of hippuric acid excreted after giving Na benzoate and glycine. Persons with liver disease have an increased sensitivity to this test. Toxins believed to provoke schizophrenia may act in part upon the liver.
W. C. TOBIE (Chem. Abstr.)

Pathogenesis of Hepatocerebral Diseases. II. Histochemical Demonstration of Copper in the Liver. Okinaka, Shigeo, et al. [*Igaku to Seibutsugaku (Med. and Biol.)*, **25**, 133 (1952).]

Cu reaction-positive granules were found histochemically in the livers of patients with Wilson's disease and with cirrhosis of the liver. The amount and the distribution of these granules differed in these 2 conditions. Pathological observations were discussed.

III. The Copper Metabolism in Wilson's Disease. Okinaka, Shigeo, et al. [*Ibid.* 209-12.]

The Cu concentrations of the livers of 2 patients with Wilson's diseases were: 34.78 (histochemically positive) and 13.1 mg. per cent. (negative). In control tests, the Cu contents were: subacute yellow atrophy, 14.29; cirrhosis of the liver, 14.0; in 15 other cases, below 8.3 mg. per cent. (the 1st 2 cases were histochemically positive). The Cu content of serum in Wilson's disease was 0.200 mg. per cent. and was not different from the normal values. However, the urinary excretion was (average) 0.764 mg./day and was far higher than the normal values. The amino acid content of the serum (total amino N) was 3.1 mg. per cent. and the maximum urinary excretion 150 mg./day. The urinary excretion of Cu in Wilson's disease increased at 1 and 2 days after the administration of 2, 3-dimercaptopropanol.

IV. The Relation Between the Cholinesterase of Basal Ganglia and Liver Diseases. Okinaka, Shigeo, et al. [*Ibid.*, 281-3.]

Results of determinations of cholinesterase activities are given for basal ganglia of 14 patients with liver diseases and of 14 patients with other diseases. No decrease in the enzymic activity was observed in liver diseases.
M. NAKAMURA (Chem. Abstr.)

The Eye and the Diencephalon. XI. The behavior of "Light Sense" in the Tonus Changes of the Neurovegetative System. Tiberi, Gian Franco. [*Riv. oto-neurol-oftalmol.*, **25**, 285 (1950); *Am. J. Ophthalmol.*, **34**, 473 (1951).]

The light sense was studied in respect to changes in the tone of the neurovegetative system produced by sympathetic and parasympathetic compounds such as pilocarpine and atropine. The drugs apparently have a central (diencephalic) action and the light sense possibly responds differently to drugs affecting the vagosympathetic equilibrium as contrasted with those that act peripherally.
W. C. TOBIE (Chem. Abstr.)

Modern Views on Synapses in Relation to Neuropathology. Grashchenkov, N. I. [*Nevropatol. i Psikhiat.*, **17**, No. 4, 17-26 (1948).]

The pharmacological effects of neostigmine (1) in neuropathological conditions are discussed and reviewed, with reference to conditions of asynapsia, hyposynapsia, and hyper-synapsia. The pharmacological effectiveness of (1) in tick-borne and mosquito-borne encephalitis indicates that a synaptic dysfunction is involved. In some brain injuries, α and β waves disappear from the electroencephalogram, followed by the appearance of new waves of great amplitude and frequency a few weeks later. If 1 ml. of 0.01 per cent. (1) is injected subcutaneously, normal waves reappear.
W. C. TOBIE (Chem. Abstr.)

Diencephalo-hypophyseal Diseases. Heller, E. F. [*Ärztl. Wochschr.*, **4**, 83 (1949).]

A girl with growth disturbances was observed for 12 years. During and after treatment with thyroid and later with anterior pituitary preparations, many diencephalo-hypophyseal symptoms (including abnormal blood Ca, albumin, and glucose levels) were seen, as well as absent or abnormal response to pilocarpine and adrenaline. Other pathological features are considered.
W. C. TOBIE (Chem. Abstr.)

Fluid and Electrolyte Exchange in the Brain in Experimental Convulsions. Adams, John E., et al. [*Trans. Am. Neurol. Assoc.*, **77**, 34 (1952).]

Tracer experiments with Na²⁴ and P³² administered intraperitoneally to the golden hamster showed that convulsions produced by intraperitoneal injection of cocaine were followed by a shift of water and Na from the extracellular fluid into the cells of the brain.
MARION HORN PESKIN (Chem. Abstr.)

Electroencephalographic Effects of Intracarotid Injections of Diodrast. Foltz, E. L., et al. [*Trans. Am. Neurol. Assoc.*, **76**, 115 (1951).]

In normal monkeys anesthetized lightly with dial, intracarotid injection of diodrast (1) usually caused a seizure pattern on the electroencephalogram, but sometimes produced marked flattening and attenuation of activity on the side of injection. Cortical activation by (1) was inversely related to depth of anesthesia, was most marked in nonanesthetized subjects, and

was greater when the injected (1) solution was at 100° F. than when it was at room temperature, in studies on conscious and anesthetized monkeys and humans. In all cases with focal epileptogenic lesions of the cortex, (1) produced gross and startling activation of the epileptogenic focus, with clinical seizures in some cases. MARION HORN PESKIN (Chem. Abstr.)

Effect of Cortisone on Peripheral Nerve during Wallerian Degeneration. McColl, J. D., and Weston, J. K. [Rev. can. biol., 12, 68 (1953).]

The daily administration of 7.5 mg./kg. of cortisone acetate to cats for 16 days following sciatic nerve section had no effect on the edema which normally follows such section. The tensile strength of the 16-day degenerated nerves in the cortisone-treated group was statistically less than that of the nerves in the treated and non-treated (control) groups. Cortisone administration resulted in less total cellularity in the 16-day degenerated nerves and hence appeared to inhibit the cellular reaction. Cortisone administered in overdose appeared to inhibit protein (collagen) anabolism in Wallerian degeneration. The decrease in the concentration of the lipides associated with the myelin sheath (cerebroside, sphingomyelin, and free cholesterol) 16 days following nerve section was not significantly altered by cortisone. There was no significant difference in the tensile strength of the intact nerves as compared to the 16-day degenerated nerves in the untreated animals. A. PAPINEAU-COUTURE (Chem. Abstr.)

Unsaturated Fatty Acids in Neurological Diseases. Rossini, R. [Riv. neurol., 19, 141 (1949); Excerpta Med., 3, 176 (1950).]

Low-temperature ether extracts were made of serums in 66 cases of neurological disease. A high 1 no. (>0.70) was strong presumptive evidence of a neoplasm of the central nervous system. W. C. TOBIE (Chem. Abstr.)

Histological and Topographic Changes and Vulnerability Relations in the Human Brain in Oxygen-deficiency Edema, and Plasma Infiltration. 1. Definitions of Problems, Histological Aspects. Scholz, W. [Arch. Psychiat. Nervenkrankh., 181, 621-64 (1949).]

Mainly pathological and histological. In edema, exudates rich in protein gradually cause anoxemia and secondary cell changes (which are described) from lack of oxygen. W. C. TOBIE (Chem. Abstr.)

2. Pharmacology and Treatment

Acute Barbiturate Poisoning. Lous, P., et al. [Ugeskrift Laeger, 111, 349 (1949).]

Some 375 patients were studied. In 5 of the most severely poisoned cases (3 died) there were periods of a few seconds to several minutes when no cortical activity was recorded in electroencephalograms. Oliguria and increased blood urea nearly always occurred. Lower nephron nephrosis was sometimes observed. Methods of therapy are discussed.

W. C. TOBIE (Chem. Abstr.)

Chronic Barbiturism. Francone, M. P. [Rev. med. cienc. afines (Buenos Aires), (11), 179 (1949).]

The pharmacological properties and chemical structure of barbiturates are discussed in reference to chronic intoxication. W. C. TOBIE (Chem. Abstr.)

Combined Effects of Analeptics on the Central Nervous System: Influence of Electric Current on Spasmodic Action and on Toxicity. Ostretko, O. P. [Farmakol. i Toksikol., 16, No. 1, 28 (1953).]

The convulsive dose of metrazole:coramine, metrazole:strychnine, and coramine:strychnine blends in frogs shows synergism; the threshold dose is smaller than for either component alone. In rabbits these blends show antagonism as to size of convulsive dose but not as to mortality; LD₅₀ was only slightly sensitive to blending of the components.

JULIAN F. SMITH (Chem. Abstr.)

Cholinergic Activity of the Brain Tissue as Influenced by Bulbocapnine, Mescaline, and N, N-diethyllysergamide. Poloni, A., and Maffezzoni, G. [Sistema nervoso, 4, 578 (1952).]

In guinea pigs, the administration of the diethylamide of lysergic acid, bulbocapnine, and mescaline (0.02-4, 50-100, and 20-100 mg., respectively) caused, respectively, an increase, a decrease, and no change of the cholinergic activity of the cerebral cortex.

C. SCANDURA (Chem. Abstr.)

Isoniazid in Cerebrospinal Fluid (CSF), Blood, and Urine. Ricci, G. G., et al. [Aggiorn. pediat., 3, 193 (1952).]

The administration of 1.45 mg. isoniazid (1) per kg. body weight to some patients with tuberculous meningitis caused the highest blood concentration of the drug at the 2nd-3rd hour. Higher doses caused higher and more lasting levels. The passage of the drug to the CSF occurred in the 1st hour. The subarachnoid administration of (1) maintained the CSF content for 10 hours. Nearly 40 per cent. of the administered (1) was excreted through the urine in 24 hours.

C. SCANDURA (Chem. Abstr.)

Adenosine 5-monophosphate in the Treatment of Multiple Sclerosis. Lowry, M. Lester, et al. [*Am. J. Med. Sci.*, **226**, 73 (1953).]

Adenosine 5-monophosphate (My-B-Den) (I) given for 6-10 months to 16 patients with severe multiple sclerosis, produced an 86 per cent. improvement in endurance and a 72 per cent amelioration of bladder disabilities, and reduced the abnormally high pyruvic acid (II)/lactic acid (III) ratio in the blood toward normal. Incoordination, visual disturbances, spasticity, sexual weakness, and paresthesia were not helped by (I) or by brief trials of Fe adenosine 3-monophosphate, oral KCl, or adrenocorticotrophic hormone. Best clinical results, without toxic reactions, were produced by 100 mg. (I) in aqueous solution 3 times/week, rather than by 20 mg. in gelatin. Multiple sclerosis may be a disease involving carbohydrate metabolism with a block at the (II)-(III) level. While search is being made for a more effective remedy, (I) warrants further investigation in the treatment of this disease and possibly other neuromuscular disturbances.

MARION HORN PESKIN (Chem. Abstr.)

The Medical Aspects of Electric Shock Therapy (Including a Study of 192 Patients). Niesen, Edmond H., jr. [*Am. J. Med. Sci.*, **226**, 143 (1953).]

Among the effects described are the effects on extracellular fluid balance. Water metabolism and eosinophil count resemble those which occur after the administration of the 11-oxysteroids, but remissions are not the result of increased secretion of these hormones.

MARION HORN PESKIN (Chem. Abstr.)

Activation of Muscle Spindles by Succinylcholine and Decamethonium. The Effects of Curare. Granit, Ragnar, et al. [*Acta Physiol. Scand.*, **28**, 134 (1953).]

Succinylcholine (Sch) has a strong transient blocking effect on neuromuscular transmission due to depolarization of the motor end-plate. The effect has been studied by intra-arterial injection on single muscle spindles in cats. Spindle excitation by Sch was favored by an increase in stretch but could be elicited in completely slack muscles by slightly increasing the dose of Sch. Even after full paralysis of alpha motor fibers as well as gamma fibers by d-tubocurarine, the transient increase of discharge rate could still be elicited by large doses of Sch, but ultimately it paralyzed the gamma end-plates. Decamethonium also increased the discharge rate of muscle spindles but the effect lasted at least an hour and the irregular bursts of discharge could be blocked by large doses of curare. It is suggested that Sch, apart from its action on the gamma fiber end-plates, affects the sensory spindle organs directly.

S. MORGULIS (Chem. Abstr.)

Influence of Dihydrogenated Ergot Alkaloids (Hydergin) on Hypoglycemic Convulsions and Death. Osswald, H., and Rossel, W. [*Naunyn-Schmiedeberg's Arch. exptl. Patiol. u. Pharmacol.*, **218**, 295 (1953).]

Hydergin significantly delays the onset of convulsions and death in rats and mice treated with convulsive doses of insulin. Postmortal investigation of the capillaries in the central nervous system showed that the effect is not caused by an improvement of the circulation in the brain. Pendiomid is able to prevent or assuage the vascular spasm produced by insulin but it has no influence on the time of convulsions and death.

A. E. MEYER (Chem. Abstr.)

Treatment of Infectious Diseases of the Nervous System by Massive Doses of Vitamin B₁ and the Peculiarity of Its Action on Pain Syndrome. Evzerova, E. K., and Shinyanskaya, Ts. Ya. [*Vrachebnoe Delo.*, **27**, 587 (1947).]

Clinical tests with 1.5-3.0 g. vitamin B₁ total doses (parenteral) showed good results in most cases of pain and sensory disturbances caused by infections of the spinal-cord rootlets and spinal nerves. Motor disturbances are not in this category, as the results in such cases were very variable. If the sympathin content of the blood is super-normal, vitamin B₁ does not have the pain-relieving activity.

G. M. KOSOLAPOFF (Chem. Abstr.)

Caffeine (use) in Morning Headaches in Hypertensive disease. Dmitrenko, L. F. [*Vrachebnoe Delo.*, **27**, 545 (1947).]

The morning headaches associated with hypertension appear to be caused by restricted venous blood flow in the brain. Caffeine appears to improve this circulation and reduces, therefore, the blood pressure within the cranium.

G. M. KOSOLAPOFF (Chem. Abstr.)

Anticonvulsive Effect of Carbonic Anhydrase. Keller, Herbert. [*Klin. Wochschr.*, **31**, 617 (1953).]

Cardiazole convulsions in mice were counteracted by carbonic anhydrase injection.

ERICH HEFTMANN (Chem. Abstr.)

Anticonvulsant Properties of Mysoline, a New Antiepileptic Drug. Goodman, L. S., et al. [*J. Pharmacol. Exptl. Therap.*, **108**, 428 (1953).]

The pharmacological properties of mysoline (I) are compared with those of phenobarbital. The change in chemical structure from phenobarbital to (I) (replacement of the O in the urea moiety by 2 H atoms) does not alter the spectrum of anticonvulsant activity, but results in a less potent anticonvulsant agent as measured by several different tests. When (I) is given to rats and mice, crystals of phenylethylmalondiamide appear in the urine.

L. E. GILSON (Chem. Abstr.)

A Comparison of the Pharmacological Actions of Phenothiazine Derivatives Used in the Treatment of Parkinsonism. Hutcheon, Duncan E. [*J. Pharmacol. Exptl. Therap.*, **108**, 340 (1953).]

Diparcol, phenergan, and parsidol show the following effects: local anesthesia when injected intradermally in guinea pigs; inhibition of acetylcholine-induced contractions of the isolated guinea pig ileum; inhibition of salivary secretion induced by infusion of carbachol in anesthetized dogs; and lengthening of the refractory period of isolated rabbit auricles as measured by the decrease in the maximal rate of stimulation. Diparcol was the most active in all tests. In cats under chloralose diparcol did not inhibit gastric acid secretion provoked by histamine.
L. E. GILSON (Chem. Abstr.)

Cytochrome Enzymes in the Brain and Liver of the Chronically Morphinated Rat. Wang, R. I. H., and Bain, J. A. [*J. Pharmacol. Exptl. Therap.*, **108**, 349 (1953).]

Brains and livers from chronically morphinated rats showed a decrease in liver diphosphopyridine nucleotide (DPN) cytochrome c reductase during morphinization and withdrawal, and a slight increase of brain and liver cytochrome c oxidase levels during morphinization followed by a marked decrease during withdrawal. No changes were observed in the malic dehydrogenase activity of either tissue. Brain DPN-cytochrome c reductase activity was not affected by the morphinization experiments.
L. E. GILSON (Chem. Abstr.)

Arterial Hypertension by Veratrum Derivatives Injected into the Nervous Centers. Cicardo, V. H. [*Arch. intern. pharmacodynamie*, **94**, 65 (1953).]

The injection of *Veratrum viride* alkaloids into the cisterna magna, cerebral ventricles, or spinal cord in dogs is followed by marked hypertension, from stimulation of the vasomotor centers. Dibenammine, hydergin, priscol, and dihydroergotamine partly antagonize the effect.
M. L. C. BERNHEIM (Chem. Abstr.)

Barbiturates and Phosphatases. Manzini, Attilio and Zoboli, Paolo. [*Arch. intern. pharmacodynamie*, **94**, 75 (1953).]

The alkaline phosphatase activities of brain, liver and kidney were measured after 1-10 days treatment of the rat with 5-ethyl-5'-methylthiobutyl-2-thiobarbituric acid or 5-isopropyl-5'-bromoallyl-3-N-methylbarbituric acid. The activities of brain and liver phosphatase were increased, and that of the kidney decreased.
M. L. C. BERNHEIM (Chem. Abstr.)

Anticonvulsant Properties of Unsaturated Carbinols. Swinyard, E. A., et al. [*Arch. intern. pharmacodynamie*, **94**, 81 (1953).]

$\text{HC}\equiv\text{CC}(\text{CH}_3)(\text{OH})\text{C}_2\text{H}_5$ (I), $\text{HC}\equiv\text{CC}(\text{CH}_3)(\text{OH})\text{CH}=\text{CH}_2$ (II) and $\text{HC}\equiv\text{CC}(\text{C}_2\text{H}_5)(\text{OH})\text{CH}=\text{CH}_2$ (III) all modify the seizures produced in laboratory animals by electric shock or metrazole and also raise the threshold for the production of seizures. (III) is most toxic, most potent and of shortest duration. (I) acts for longer than (II), and in larger doses affects the convulsions of patients receiving electric shock therapy.
M. L. C. BERNHEIM (Chem. Abstr.)

The Hypothalamic-cortical System in Barbiturate Anesthesia. Gellhorn, E. [*Arch. intern. pharmacodynamie*, **93**, 434 (1953).]

Increasing the depth of barbiturate anesthesia in cats is accompanied by the gradual loss of cortical "background" potentials, and diminution in the frequency of hypothalamic potentials. This is similar to the effect of hypercapnia. In deep anesthesia, the cortico-hypothalamic system may be unreactive, while the reactivity of the sensory projection areas is retained.
M. L. C. BERNHEIM (Chem. Abstr.)

Influence of Some Narcotics and Sedatives on Blood Coagulation. Macht, David I. [*Arch. intern. pharmacodynamie*, **93**, 325 (1953).]

The clotting time of whole blood in rabbits is not influenced by codeine, papaverine, dihydromorphinone, dihydrocodeinone, methadone, cocaine, ether, CHCl_3 , EtOH, urethan, barbital, phenobarbital, seconal, or nembutal. Morphine, procaine, novocaine, ethyl morphine, diacetyl morphine, N-allyl morphine, and demerol all promote blood clotting, approximately in decreasing order of activity.
M. L. C. BERNHEIM (Chem. Abstr.)

The Effect of the Antihistaminic Drugs on the Central Nervous System in Rats and Mice. Heinrich, Max A. [*Arch. intern. pharmacodynamie*, **92**, 444 (1953).]

Phenindamine, tripeleminamine, and prophenpyridamine were least active, thonzylamine, methapyrilene, ambodryl, and toladril were fairly active and phenergan, diphenhydramine, antazoline, and chlorprophenpyridamine were quite active in potentiating the effects of hexethal and other hypnotic and narcotic drugs in rats. Amobarbital is least affected, secobarbital, pentobarbital, butobarbital, thiopental, hexethal, hexobarbital, chloral hydrate, urethan, and tribromoethanol are intermediate, and paraldehyde is most potentiated by diphenhydramine. Tolerance develops to diphenhydramine HCl with daily doses; at first, 10 mg. is equivalent to 6-9 mg. intraperitoneal Na hexethal. Amphetamine antagonizes hexethal and hexethal-diphenhydramine narcoses in rats, but the effect of caffeine was not predictable. Diphenhydramine usually antagonizes the loss of running ability caused in mice

by ether or chloroform, and potentiates the curariform action of ether in fatigue. The anti-histamines do not appreciably alter the food intake or the spontaneous activity of rats or hamsters.
M. L. C. BERNHEIM (Chem. Abstr.)

Neuromuscular Paralysis of Controlled Intensity and Duration Obtained by Perfusion with Succinylcholine. Reuse, J. J. [*Arch. intern. pharmacodynamie*, **92**, 417 (1953).]

In dogs, continuous perfusion of succinylcholine in different concentrations establishes a definite paralysis for varying periods of time, and does not affect the recovery period once the perfusion is stopped.
M. L. C. BERNHEIM (Chem. Abstr.)

Activity and Toxicity of Certain Antiepileptics, Standardized by Means of Experimental Electrical Epilepsy. Frommel, V. Ed., et al. [*Arch. intern. pharmacodynamie*, **92**, 368 (1953).]

The effects of phenobarbital, diphenylhydantoin, phenacetylurea (I), and phenylethylacetylurea (II) on the thresholds for the tonic phase and coma during electrical epileptic fits in guinea pigs were studied. Phenobarbital is effective for electrical and chemical fits, but has hypnotic and depressive actions. Its therapeutic index (min. lethal dose/activity) is 6.3 for strychnine fits, 16 for coramine, 5 for metrazole, and 1.9 for electric shock. Diphenylhydantoin acts especially on the tonic phase, and its index is 1 for chemical shock, but 1.9 for electric shock. (I) Is not depressant, but may cause pathological changes in the liver and blood. Its index is 4.5 for strychnine, 3.3 for coramine, 15 for metrazole, and 7.6 for electric shock. (II) Is very effective in all kinds of seizures. Its index is 10.3 for strychnine, 14 for coramine, > 10 for metrazole, and 5.1 for electric shock.
M. L. C. BERNHEIM (Chem. Abstr.)

The Pharmacology of 3-chloro-10-(3-dimethylaminopropyl) Phenothiazine-HCl. A Substance which Potentiates Anesthetics and Causes Hibernation. Courvoisier, Simone, et al. [*Arch. intern. pharmacodynamie*, **92**, 305 (1953).]

The LD₅₀ of 3-chloro-10-(3-dimethylaminopropyl)-phenothiazine-HCl (R.P. 4560) intravenously for mice, rats, and rabbits is comparable to that of promethazine, isothiazine, and diethazine; it is more toxic by mouth. It has a mild parasympatholytic action, and inhibits the secretion of HCl. It has a general antiadrenaline effect, but does not reduce adrenaline hyperglycemia. It is a mild antispasmodic. Intravenous injection into dogs of 0.5-5 mg./kg. produces mild hypotension and has little action on the heart. In rats it prevents, to some extent, the edema following ovalbumin or dextran, and has no effect on kidney function even after repeated doses. In high concentrations it inhibits blood coagulation, and depresses respiration in rabbits. It has little antihistamine effect. It has a marked potentiating effect on general anesthetics, both hypnotic and analgesic, and narcosis can thus be obtained with much smaller doses of the analgesic. With a curarizing drug, gallamine triethiodide, it does not increase the toxicity but aids in the induction and duration of the curarization. It increases the local action of procaine, and has some local anesthetic action of itself. It potentiates the narcotic effects of EtOH, and suppresses the excitation, and shows anticonvulsive effects against coramine and nicotine, but not strychnine. It has a strong hypothermic effect, greater than that of pyramidon, and suppresses thermoregulation. It reduces the respiratory exchange in nerve cells. The emetic effect of apomorphine is completely antagonized by it. It is very active against hemorrhagic shock in dogs and traumatic shock in rats.
M. L. C. BERNHEIM (Chem. Abstr.)

Local Anesthetic Effects of Sodium Amytal. Schiller, Francis. [*Anesthesiology*, **14**, 321 (1953).]

Sodium 5-isoamyl ethylbarbiturate in 4 per cent. isotonic solution has good local anesthetic properties when injected intradermally in human subjects or applied to frog sciatic-nerve preparations. In rhesus monkeys it produces spinal anesthesia before producing sleep when injected subdurally. Sodium secobarbital produces more profound and partly irreversible local anesthesia. Sodium phenobarbital has only very slight or no anesthesia. Sodium phenobarbital has only very slight or no anesthetic effect in human skin wheals.

KARL F. URBACH (Chem. Abstr.)

Recent Advances in the Study of Psychotonic Amines. Sabrié, R. [*Rev. méd. franç.*, **29**, 89 (1948); *Excerpta Med.*, Sect. VIII, **2**, 881 (1949).]

The pharmacol. properties of d-amphetamine sulfate (dexedrine, maxilton) are discussed. It has a spectacular action against barbiturate coma. Other applications are described.

W. C. TOBIE (Chem. Abstr.)

The Effects of Curare and Prostigmine on the Central Nervous System. Berman, S. [*Connecticut State Med. J.*, **12**, 1111 (1948); *Abstr. World Med.*, **6**, 269 (1949).]

The effects of curare (I) and of neostigmine (singly or together) on the reflexes, spasticity, and clonus in 21 neurological cases are described. Animal experiments indicate that the maximum action of (I) is subcortical, probably involving the motor centers of the brain stem. Twenty-seven references.
W. C. TOBIE (Chem. Abstr.)

The Neuromuscular and Ganglionic Blocking Action in Man of Bis(trimethylammonium) Decane (Diiodide) and Bis(trimethylammonium) Pentane Diiodide. Grob, D., et al. [*Bull. Johns Hopkins Hosp.*, **84**, 279 (1949); cf. *C.A.*, **45**, 4837h.]

The first drug gives muscular relaxation, the second is a ganglionic blocking agent.

W. C. TOBIE (Chem. Abstr.)

Comparative Depression of Several Short-acting Barbiturates and Spirobarbiturates. Lee, Woo Choo. [*Japan. J. Pharmacol.*, **2**, 123 (1953).]

Spiro (2'-ethyl-3', 5'-dimethylcyclopentane) barbituric acid (I) and its thio analog (II) produced a satisfactory hypnotic and anesthetic effect in rats and rabbits. The duration of action of both was the same. (II) Had a shorter duration of action than thiopental and surital and (I) had a shorter duration of action than pentobarbital and secobarbital. The thiobarbituric acid derivatives were longer acting than their nonthio analogs in growing rats.

RICHARD F. RILEY (Chem. Abstr.)

Cure of Chronic Alcoholism by Apomorphine. Feldmann, H. [*Sem. hôp. Paris*, **29**, 1481 (1953).]

Apomorphine has in addition to its emetic effect an influence on the diencephalic emotivity, affectivity, nutritive, and impulsion centers as demonstrated by experiments with cats.

GEO. SAG (Chem. Abstr.)

The Effect of Cortisone and Deoxycorticosterone on Metrazole Convulsions in Mice. Leonard, Charles A., et al. [*J. Am. Pharm. Assoc.*, **42**, 442 (1952).]

Pretreatment with cortisone and deoxycorticosterone does not significantly affect metrazole-induced convulsions in mice.

DAVID B. SABINE (Chem. Abstr.)

Stimulants of the Chemoreceptors and Blood-brain Barrier. Winterstein, Hans and Gokhan, Nurnn. [*Naunyn-Schmiedebergs. Arch. exptl. Pathol. Pharmacol.*, **219**, 192 (1953).]

Chemoreceptor stimulants such as NH_4Cl (H ions), lobeline, and NaCN lose their stimulating action on the respiration after extirpation of the carotid sinus receptors because they do not pass the blood-spinal fluid barrier. They regain their action by introduction into the 4th ventricle.

A. E. MEYER (Chem. Abstr.)

Action of Alcohol, Acetone, Ether, and Chloroform on the Chemoreceptors of the Glomus Caroticum. Landgren, S., et al. [*Naunyn-Schmiedebergs Arch. exptl. Pathol. Pharmacol.*, **219**, 185 (1953).]

Injections of EtOH , Me_2CO , Et_2O , or CHCl_3 in Ringer solution into the carotid artery of cats cause an augmentation of the action potentials of the sinus nerves elicited by the chemoreceptors. Atropine, d-tubocurarine, hexamethonium, and NH_3 inhibit the potentials partially or completely. This suggests that the narcotics used increase the chemical impulses in the glomus by inhibition of the cholinesterases.

A. E. MEYER (Chem. Abstr.)

Effects of Injection into the Cerebral Ventricles of the Dog. Central Action of the Compound. Cathala, H. P., and Pocidalò, J. [*J. Compt rend. soc. biol.*, **146**, 1709 (1952); cf. *C.A.*, **47**, 765b.]

Injection of 2 mg./kg. into the cerebral ventricle produced profound narcosis lasting 1-2 hours, hypothermia, and complete absence of hypertensive response to stimulation of the vagus or occlusion of the primary carotid arteries.

L. E. GILSON (Chem. Abstr.)

Correlation of the Uptake of Dye by the Mouse Brain with the Action of Strychnine. Romanov, S. N. [*Doklady Akad. Nauk. S.S.S.R.*, **89**, 753 (1953).]

Generally the resistance of the animal to strychnine bears a reciprocal relation to the ability of its brain to take up neutral red. Stimulation (electric) of peripheral nerves enhances this uptake, which decline to a minimum in 1 hour, then rises to a sharp maximum at 2 hours (reaching control level), declines to a minimum at 3-4 hours (which is higher than the 1st minimum) and rises to another maximum near control level at 5 hours. The resistance to strychnine (0.002 mg. per g. of body weight) in respect to onset of convulsions and time of death, plotted against time after nerve stimulation as above gave a picture that is substantially a mirror image of the uptake of neutral red. The animals given strychnine during the 2nd min. of dye uptake survived.

G. M. KOSOLAPOFF (Chem. Abstr.)

Analgesic Power and the Question of Acute Tolerance to Narcotics in Man. Beecher, Henry K., [*J. Pharmacol. Exptl. Therap.*, **108**, 158 (1953).]

Repeated injections, at intervals of several hours, were made in patients having surgical pain. No evidence was found of the development of acute tolerance to the analgesic action of morphine, *l*- α -acetylmethadol, heptazone, 6-methylhydromorphine, and metopon, either in terms of loss of effectiveness or in shortening of the effective period.

L. E. GILSON (Chem. Abstr.)

Comparison of Maximal Seizures Evoked by Pentylentetrazole (Metrazole) and Electroshock in Mice, and their Modification by Anticonvulsants. Goodman, L. S., et al. [*J. Pharmacol. Exptl. Therap.*, **108**, 168 (1953).]

The type of convulsions produced by each method is discussed and the modifying and protective effects of tridione, paradione, phenobarbital, mebaral, phenurone, dilantin,

mesantoin, and thiantoin are described. The first 5 drugs are more potent against metrazole than against electroshock, and the last 3 are more potent against electroshock.

L. E. GILSON (Chem. Abstr.)

Comparison of Anticonvulsant Glycerol Ethers. Ginzel, K. H. [*Naunyn-Schmiedeberg's Arch. exptl. Pathol. Pharmacol.*, **212**, 331 (1951).]

Myanesin, myocaine (I) and 2 homologs of (I) given orally or intraperitoneally protect mice against lethal doses of metrazole and strychnine. The average protective doses are within the subparalytic range. With (I) the difference between protective and paralyzing dose is largest. All substances have a hemolytic effect which is smallest with (I). The point of attack is central. Neuromuscular block occurs with sublethal doses only.

A. E. MEYER (Chem. Abstr.)

Injections with Pure Glutamic Acid. Kergl, Ernst. [*Med. Monatsschr.*, **7**, 1516 (1953).]

The favorable effects of glutamic acid on the nervous system were obtained more rapidly and more conspicuously. An injection contained 1.5 g. glutamic acid and 0.15 g. glycine in 10 cc. H₂O.

A. E. MEYER (Chem. Abstr.)

Warburg's Theory of Narcosis. Rumme., Walter. [*Naunyn-Schmiedeberg's Arch. exptl. Pathol. Pharmacol.*, **212**, 177 (1951).]

The O consumption of human erythrocytes with cysteine-HCl (I) as activator in phosphate buffer of pH 7.4 and the influence of ethylurethan (II) were determined. At concentrations of (II) which were capable of causing total inhibition of respiration, the addition of (I) restored normal O absorption. Since the concentration of (II) was about 100 times that of (I) a molecule competition seems to be out of the question. The possibility of changes in the dielectric medium is discussed.

A. E. MEYER (Chem. Abstr.)

Electroencephalic Analysis of the Mutual Influence of Narcotic and Analeptic Drugs. Driesen, Wilhelm, et al. [*Naunyn-Schmiedeberg's Arch. exptl. Pathol. Pharmacol.*, **212**, 243 (1951).]

The cortical potentials in the cat inhibited by barbiturates were restored by metrazole (I). Coramine also causes suppression of the potentials which is reversed by (I). (I) Has only a mild restorative effect in Et₂O anesthesia. Convulsive discharges appear early. Coramine has no influence on the encephalogram in anesthesia and convulsive doses do not cause spastic discharges. (I) Also causes early spastic discharges in chloralose anesthesia. Conclusion: (I) and barbiturates have their point of attack in the brain stem, chloralose and Et₂O act on the cortex.

A. E. MEYER (Chem. Abstr.)

Urinary Colloidal Proteins during Electroshock Therapy. Gomirato, G., and Beghelli, G. [*Boll. soc. ital. patol.*, (1), 218 (1950).]

In 15 patients with depressive syndromes the colloidal protein content of urine averaged 15.02 and 66.95 mg. per cent. respectively, before and after 9 electroshock applications.

C. SCANDURA (Chem. Abstr.)

Potassium Permanganate in the Treatment of Status Epilepticus. Repin, N. I. [*Nevropatol. i Psikiat.*, **17**, No. 2, 67 (1948).]

Of 600 cases of epilepsy given extensive biochemical investigation, about 30 were cases of status epilepticus (I). Intravenous injections of 20 ml. of 0.1 per cent. KMnO₄ invariably terminated attacks of (I), often in 5-10 minutes. Results are attributed to an increased supply of O absorbed on erythrocytes, leading to oxidation of products of incomplete metabolism. Adsorbed Mn ions may also catalyze oxidation processes. The water in the injection has a hemolytic effect causing dispersion of colloids of plasma and of formed elements in the blood.

W. C. TOBIE (Chem. Abstr.)

Peculiar Cerebral Lesions Caused by Depot Insulin in Dogs. Tobel, Friedabert. [*Arch. Psychiat. Nervenkrankh.*, **180**, 569 (1948).]

Cerebral changes produced in dogs and man by overdosage of insulin are described. The vulnerability of depancreatized animals to depot insulin is attributed to a profound alteration of metabolism including disturbed phosphorylation of hexose in the brain.

W. C. TOBIE (Chem. Abstr.)

Antagonism between Succinic Acid and Barbituric Drugs. (I) Experimental Research on the Time of Narcosis, Respiration, and Blood Circulation. Zoboli, P. [*Acta anesthesiol. (Padua)*, **2**, 443 (1951).]

In dogs treated with hypnotic or toxic Na pentothal doses, the administration of succinic acid was scarcely efficient against the cardiovascular and respiratory collapses caused by the intoxication, and also inefficient in breaking or considerably shortening the barbituric narcosis.

(II) Electrocardiographic Research. Zoboli, P., and Dal Co, C. [*Ibid.*, 449.]

No changes of the electrocardiogram, as influenced by Na pentothal, were observed after succinic acid administration, even at high doses.

C. SCANDURA (Chem. Abstr.)

Anticonvulsant and Growth-inhibitory Effects of Some Organophosphorus Compounds. Ramaswami, Dasu and Kirch, Ernst R. [*J. Am. Pharm. Assoc., Sci. Ed.*, **42**, 495 (1953).]

The anticonvulsant action on mice (measured in terms of protection against electroshock and metrazole) and the selective inhibitory effect on germination of oat and yellow charlock seeds were tested in a series of dialkyl anilidophosphates in comparison with phenylurethan. In the series, dipropyl and dibutyl anilidophosphates were the most potent and the latter the most toxic. The regularity of the specific biological activity in the series is apparently due to their structural pattern with the -PONH group as the nucleus.

DAVID B. SABINE (Chem. Abstr.)

Experimental Study of the Neurotoxicity of Isoniazid and Its Prevention. Cahn, J., et al. [*Thérapie*, **8**, 62 (1953).]

In albino rats of 120-150 g. the LD₅₀ of isonicotinic hydrazide, administered by intramuscular, intravenous, intraperitoneal, or subcutaneous route was 400-450 mg./kg. Simultaneous administration of antihistaminics did not significantly affect the lethal dose, but amobarbital 20 and 40 mg./kg. increased it, respectively to 825 and 1050 mg./kg.

GEO. SAG (Chem. Abstr.)

Death Due to Withdrawal of Barbiturates. Fraser, H. F., et al. [*Ann. Internal Med.*, **38**, 1319 (1953).]

JOHN T. MYERS (Chem. Abstr.)

Excitant Action of Acetylcholine and Other Substances on Cutaneous Sensory Pathways and its Prevention by Hexamethonium and D-tubocurarine. Gray, W. W., and Gray, J. A. B. [*J. Physiol.*, **119**, 118-28 (1953).]

Intraarterial (i.a.) injection of 0.2 ml. of 10⁻⁸ g./ml. acetylcholine (I) into the skin of chloralose-anesthetized (100 mg./kg.) cats produced an outburst of centripetal action potentials. Intravenous (i.v.) skin injections of decamethonium (150-500 μ /kg.) did not diminish the sensory excitant action of injected (I) or depolarize the motor end-plates; similar results were obtained for atropine (1-4 mg./kg.) in smooth muscle. Ciba 7337, a sympathetic nerveending blocking agent (i.v., 5 mg./kg.), prevented pilomotor response of cat's tail tuft of hair as well as the sensory discharge (II) on close i.a. injection of (I) or of adrenaline (III). Effects of i.a. injection of (I) could not be mimicked by i.a. injection of (III) (in concentrations up to 10⁻⁴ g./ml.). These data indicate that the (II) produced by (I) is due to direct action on the sensory pathway. Close i.a. injection of nicotine and α -lobeline (0.2 ml. of 10⁻⁴ g./ml.) also produced (II). Hexamethonium (IV) (i.v., 20 mg./kg.) and d-tubocurarine (V) (i.a., 0.2 ml. of 10⁻³ g./ml.) prevented initiation of (II) by close i.a. injection of (I), but failed to block the responses to injected 1.2 per cent. KCl or to touch; (IV) and (V) do not exert their effects by blocking conduction in sensory nerves, but act similarly, to (I), nicotine, and α -lobeline.

MORRIS ROCKSTEIN (Chem. Abstr.)

Blood Proteins under the Influence of Electroshock. Bornschein, H., and Auerswald, W. [*Wien. Z. Nervenheilk.*, **2**, 164 (1949).]

The serum proteins (I) and hemoglobin (II) were determined before and for 60 minutes after electroshock in physically fit but psychotic patients. In agreement with Delay (I) increased to a maximum 2-5 minutes after the start of shock, then declined below initial values. Individual differences in initial (I) were related to muscular activity. The theory that increased (I) is mainly due to muscular convulsion was confirmed by experiments on dogs with and without curare. In a patient whose poliomyelitic paralysis prevented clonic convulsions, (I) increased only very slightly. (II) Regularly showed an increase, then a rapid fall to normal levels within 7.5 minutes. Curare did not modify these changes in (II). All plasma-protein fractions were equally involved in the increases in (I), which were associated with increased viscosity, n, and total N. There were no direct connections between the changes in (I) and in (II), the latter probably being produced by a central diencephalic mechanism, not by muscular activity.

W. C. TOBIE (Chem. Abstr.)

Acute Severe Barbiturate Intoxication. Kirkegaard, A. [*Ugeskr. Laeger*, **111**, 356-60 (1949).]

The chemical properties and pharmacological effects of barbiturates are discussed, as well as the treatment of overdosage.

W. C. TOBIE (Chem. Abstr.)

Hypertensive Encephalopathy and Cerebral Arteriosclerosis. Russek, H. I., and Zohmna, B. L. [*N.Y. State J. Med.*, **49**, 1411 (1949).]

Caudal anesthesia with metycaine reduced the arterial pressure (I) in 4 cases of cerebral arteriosclerosis for several hours. Although (I) was rendered almost normal, cerebral complications (such as convulsions and paralysis) were unaffected. Increased (I) represents a compensatory mechanism. The use of antispasmodics such as papaverine is more justifiable than attempts to decrease (I).

W. C. TOBIE (Chem. Abstr.)

The Barbiturate Test in Normal Individuals and in Patients with Organic Disease of the Nervous System. Šercl, Mir. [*Neurol. a Psychiat. Československá*, **12**, 102 (1949).]

Healthy, neurologically normal subjects (I) 8 hours after taking 0.3-0.4 g. phenobarbital (II) usually show a bilateral syndrome of cerebellum (III) deficiency, with horizontal nystagmus

in all cases. In persons under 30 there is also a vertical nystagmus in most cases. Other signs (which are described) are sometimes present, but a unilateral syndrome originating from the (III) is never shown. Nevertheless, except for certain tracts, (II) has little action on the (III) but acts mainly upon cellular tracts in the mesencephalon (IV). Confirmatory evidence is the fact that in fatal poisoning, (II) is mainly concentrated in the (IV). In patients with posterior fossa lesions, neurological signs from the action of (II) on the (III) are more pronounced. With lesions in the (IV) the signs are strongly pronounced, and are of value in diagnosis. The effects of prolonged intake of (II) in modifying the signs are discussed. Many references.

W. C. TOBIE (Chem. Abstr.)

Comparative Effects of Analeptics and Multivitamin Preparations on Reflex Activity of the Central Nervous System in Anemic Frogs. Kudrin, A. N. [*Farmakol, i Toksikol.*, 16, No. 3, 24 (1953).]

Frogs were given 0.5 ml. 1 per cent. caffeine-NaOBz solution, 0.4-0.5 ml. 0.01 per cent. picrotoxin, 0.5 ml. 0.5 per cent. coramine, 0.2-0.5 ml. 0.01 per cent. strychnine, or 0.5-1 ml. of a multivitamin preparation 30-50 minutes before inducing anemia by aortal ligation. Picrotoxin and coramine fortified the central nervous system against anemic paralysis; the others did not. Caffeine and strychnine, in after-treatments, accelerated recovery from the anemia paralysis; the vitamins had no effect in either case. The analeptics, in descending order of efficacy against anemia paralysis, are: picrotoxin, coramine, caffeine, strychnine.

JULIAN F. SMITH (Chem. Abstr.)

Effect of Metrazole Shock on Adrenal Glands. Pekkarinen, A., et al. [*Acta Endocrinol.*, 6, 257 (1951).]

Metrazole (I) shock was administered to rabbits by injecting 45-60 mg. (I) in 10 per cent. solution into the ear vein every other day for 3 weeks. During treatment the weight of the adrenal glands decreased 26 per cent.; the adrenaline increased 25 per cent., ascorbic acid 38 per cent., and cholesterol 121 per cent. Liver glycogen increased 30 per cent., spleen cholesterol 20 per cent. The weight of the spleen was reduced 15 per cent.; body weight and other organs remained practically unchanged.

K. SCHOEN (Chem. Abstr.)

The Effect of Ion Exchange Resin in Epilepsy. Sheppe, Wm. M., et al. [*Trans. Am. Neurol. Assoc.*, 77, 17 (1952).]

The K and NH₄ form of a cross-linked polyacrylic (carboxylic) cation exchange resin (I), given in daily dosage of 45 mg. with a 1,000 mg. Na diet to patients with severe epilepsy, rendered the electroencephalogram normal in 10 days. During (I) administration, the patients showed marked reduction in urinary Na and K, no change in serum Na, a slight decline in serum K, no change in CO₂ combining power or chloride or urea content of the blood, and an increased urine volume.

MARION HORN PESKIN (Chem. Abstr.)

Effects of Adrenocorticotrophic Hormone (ACTH) and Cortisone in Multiple Sclerosis. Glaser, Gilbert H., and Houston Merritt, H. [*Trans. Am. Neurol. Assoc.*, 76, 130 (1951).]

Among 33 patients with multiple sclerosis treated with ACTH sometimes followed by cortisone, 36 per cent. showed general but transitory improvement, without curative changes. Decreases and increases in cerebrospinal fluid protein, including γ -globin, accompanied treatment in some cases. Generalized asthenia sometimes appearing during therapy was not associated with lowered serum K but was occasionally relieved by KCl.

MARION HORN PESKIN (Chem. Abstr.)

Synthetic Anticonvulsants. I. Pharmacological Properties of 3-(2'-methylphenoxy) Propane-1, 2-diol and 3-(2'-methoxyphenoxy) Propane-1, 2-diol. Omiya, Teruo. [*Folia Pharmacol. Japon.*, 49, No. 2, 112 (1953); *Breviaria*, 12.].

The muscle-relaxing and anticonvulsant activities against convulsions induced by strychnine, picrotoxin, and metrazole were comparatively studied with 3-(2'-methylphenoxy) propane-1, 2-diol (myanesin) (I) and 3-(2'-methoxyphenoxy) propane-1, 2-diol (hustosil) (II) in mice. The PD₅₀ (50 per cent. paralyzing dose) and LD₅₀ (both per 10 g.) were, respectively: (I) 0.98 mg., 4.85 mg.; (II) 2.54 mg., 11.7 mg. (I) Inhibited the convulsion induced by strychnine with twice its PD₅₀. (II) Had lesser action. To the convulsion by picrotoxin, both (I) and (II) had weaker actions, the latter being slightly stronger. (II) Inhibited the convulsion by metrazole, with small administration while (I) was much weaker, suggesting that the difference is qual. Both (I) and (II) were hardly anticonvulsant to caffeine and camphor; but previous administration of a minute convulsant dose of the latter notably augmented and made longer the paralyzing action of (I) but not of (II). Against convulsion by benadryl (I) had no action.

II. Pharmacological Properties of Phenyl Glucosides. [*Ibid.*, 119; *Breviaria*, 13.].

The PD₅₀ and LD₅₀ were: o-toyl- α - 3.12, 11.2; β - 2.4, 8.5; guaiacol- α - 10.1, 27.0; β -glucoside 16.6, 25.0 mg./10 g. mice. α -Glucosides were more active in muscle relaxing than β -glucosides and with less severe side effects. Effects of these glucosides were somewhat delayed. The degrees of relaxation did not always parallel the doses. The 2 above α -glucosides,

in large amount, inhibited the convulsion by metrazole, but β -glucosides did not. All the glucosides above did not have anticonvulsant action against strychnine and picrotoxin. The significance of the glycerol group in (I) and (II) in muscle-relaxing and anticonvulsant actions was discussed.
SHOZABURO KITAOKA (Chem. Abstr.)

Action of the Adrenocorticotrophic Hormone (ACTH) on the Electrical Activity of the Brain.
Monnier, Marcel. [Rev. méd. Suisse romande, 73, 511 (1953).]

ACTH causes modifications of the electrical activity of the rabbit brain which are defined as a function of the injected dose and of its duration of action. Early alterations consist in a thalamocortical activation and late modification consist in depression of electrogenesis which may be a prelude to the death of the animal.

MIREILLE CASTAMBIDE-ODIER (Chem. Abstr.)

Action of Diethylstilbestrol on the Hypothalamic Neurosecretion of the Female White Rat.
Stutinsky, F. [Ann. endocrinol., 14, 101 (1953).]

Injection of large doses of diethylstilbestrol increases the neurocytogenous secretion of the hypothalamus and of the neurohypophysis. This phenomenon is morphologically revealed by Gomori's chromic hematoxylin. The histological modifications parallel the hyperproduction and hypersecretion of the antidiuretic hormone, whereas the oxytocic principle seems to be diminished in the neurohypophysis. Progesterone produces modifications of the histological aspect of the hypothalamus and neurohypophysis which are in every respect contrary to those engendered by injections of distilbene.

MIREILLE CASTAMBIDE-ODIER (Chem. Abstr.)

The Action of Narcotic and Convulsive Agents on the Brain of Cold-blooded Animals Previously Treated with Acetylcholine. Muller-Limmroth, Heinz Wolf and Massmann, Helmut. [Pflugers Arch. ges. Physiol., 255, 379 (1952).]

Frogs were injected intraperitoneally with high doses (0.005 mg./g.) of acetylcholine (I). A further injection 10 minutes later of 1 ml. 25 per cent. ethylurethan (II) or of 0.75 ml. of 0.1 per cent. strychnine (III) was injected into the lymph sac. After another 10 minutes, the frogs were decapitated and electroencephalographic tracings recorded. (I) Increased the frequency and the regularity of the waves. (II) Reduced the activity to a barely detectable level. (III) Increased both the frequency and the amplitude of the waves. The normal duration of bioelectrical activity of the brain from (I)-treated frogs was 26-27 minutes. With (I) plus (II), this was shortened to 3.5 minutes and with (I) plus (III), lengthened to 40 minutes. The normal brain K was 401 mg. per cent. The brain of (I)-treated frogs contained 373 mg. per cent. (I) plus (II) caused a fall to 305 mg. per cent. and (I) plus (III) produced a rise to 454 mg. per cent.

HERMAN I. CHINN (Chem. Abstr.)