

*The Fat, Lipin and Cholesterol Constituents of Adrenals and Gonads in Cases of Mental Disease.* (*Biochem. Journ.*, vol. xxii, No. 4, 1928.) Woodhouse, D. L.

This is an account of an important research suggested by the late Sir Frederick Mott, and conducted by the author at the Research Laboratories, Hollymoor Mental Hospital, Birmingham.

Sir Frederick believed that the fat, cholesterol and lipin substances of the nervous system and gonads were possibly manufactured in the cortex of the suprarenal gland.

The author has carried out an analysis of the total alcohol-ether soluble extractives of the adrenals and gonads in 38 patients in mental hospitals, with the object of showing the relationships between the fatty constituents of these glands, and their relative proportions in cases of mental disorder.

The percentages of total fatty acid, lecithin, sphingomyelin, free and ester cholesterol and free fatty acid were determined and the average results for various mental states and age-groups ascertained. The percentage amount of fatty extractives from the gonads was found to show much less variation than that from the adrenals. The lowest adrenal content was found in dementia præcox and the highest in senile dementia.

Low values of phosphatide were obtained in the adrenals of the confusional group, and high figures were found in the adrenals of epileptics.

The relative proportions of the total cholesterol to the total phosphatide varied greatly in the cases examined, and the ratio of these proportions in the pairs of glands differed from unity in a marked degree, so that the evidence from quantitative chemical analysis of the fatty constituents did not support the view that the lipoids of the gonads are elaborated by and transported directly to these glands from the adrenal cortex.

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### 5. Treatment.

*Malarial Therapy of Syphilis of the Nervous System [Terapia malarica della lue nervosa].* (*Il Cervello, Anno viii, No. 4, August 15, 1929* [vii].) Marino, Benvenuti.

The author describes the treatment by malarial therapy at the Pisa University Clinic for Nervous and Mental Diseases, under the direction of Prof. G. B. Pellizzi, of cases of lues of the nervous system occurring in the years 1927-29.

The malarial parasite, the benign tertian (*Plasmodium vivax*), was obtained from a patient at the Clinic of St. Salvi, Florence; 5 c.c. of this patient's blood was injected in the subcutaneous tissues between the scapula and vertebral column in 34 cases, and all responded except 4 (tabo-paresis 1, general paralysis 3); in these repeated attempts failed to carry the infection.

The diagnosis was apparently based on clinical evidence only, no mention being made of laboratory tests. On the observations recorded it was, however, in each case, fully justified.

The cases are first presented in tabular form, in which full details are given of each, the symptomatology being described before, during and after malarial infection. The cases as a whole are then discussed at length from every aspect, including professional and social capacity and legal responsibility of remitted cases.

From the table and the subsequent text are gathered *inter alia* the following facts:

*Results of Treatment (Wagner-Jauregg's Classification).*

Remissions, complete . . . . .	9 = 30%.
"    incomplete of high grade . . . . .	5 = 16.66%.
"    "    of moderate grade . . . . .	3 = 10%.
No change . . . . .	8 = 26.66%.
Died . . . . .	5 = 16.66%.

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The total of the first two groups indicates a good result in 46.66% of cases.

The incubation period of the malaria was from 3 to 43 days—usually 7–12 days. The highest number of febrile attacks in any one case was 23. Cessation of febrile attacks was spontaneous in 14 cases. The fever was either quotidian from the first, or assumed that form later, in 90% of cases.

*Relation of the Results to Specific Treatment.*

	Number of cases.	Remissions complete.	High grade.	Moderate grade.	Un-changed.	Died.
Intramuscular injection of bismuth (salbiolo) . . . . .	4	1	1	1	1	..
Intramuscular injection of bismuth (salbiolo) alternating with mercurial inunction . . . . .	4	2	..	0	2	..
Intramuscular injection of bismuth (salbiolo) alternating with myo-salvarsan . . . . .	6	1	3	1	1	..
Myo-salvarsan . . . . .	4	3	..	..	..	1
Myo-salvarsan alternating with mercurial inunction . . . . .	6	2	1	..	3	..
No specific treatment . . . . .	6	..	..	1	1	4
	30	9	5	3	8	5

*Duration prior to Malarial Treatment in Successful Cases.*

General paralysis	Remissions complete . . . . .	14 days (1), 3 months (1), 4 months (4) 6 months (1), 7 months (1), 2½ years (1).
	Remissions incomplete, . . . . .	5 months (1), 8 months (1), 9 months (1), 1 year (1), 3 years (1).

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*Relationship of Mental State to Results of Treatment.*

		Number of cases.	Remis- sions complete.	High grade.	Moderate grade.	Un- changed.	Died.
General paralysis	Demented	16	2	4	2	4	4
	Euphoric	5	4	..	..	1	..
	Depressed	4	2	1	..	1	..
	Asthenic	1	1	..	..	..	..
Tabo- paresis	Demented	1	..	..	..	..	1
	Euphoric	1	..	..	..	1	..
	Paranoid	1*	..	..	1	..	..
Tabes	Psycho-neurotic	1	..	..	..	1	..
		<u>30</u>	<u>9</u>	<u>5</u>	<u>3</u>	<u>8</u>	<u>5†</u>

\* This was the only case which had previously shown spontaneous remission.

† In all cases the treatment aggravated the symptoms and precipitated the fatal result.

Thus the best results were obtained in the emotionally disturbed cases of general paralysis and the worst in the tabo-paretic cases.

J. R. LORD.

*The Use of Tryparsamide in Paresis and Tabo-Paresis. (Can. Med. Assoc. Journ., March, 1929.) Menzies, E. C.*

The author reviews forty-one cases of cerebro-spinal syphilis, chiefly general paralysis, which were treated with tryparsamide from May, 1923, to May, 1925. At the time of writing, four years, at least, after cessation of treatment, 10 patients had been discharged, 14 were still living, but with advanced dementia, and 17 had died.

Periodic laboratory tests showed a serum reaction in 10 cases, but there was a definite and permanent improvement in this respect in every instance. The tryparsamide was given in weekly doses of 3 grm., with 0.06 grm. of mercury salicylate. In another series of cases bismuth gave better results. Duration of treatment was well over a year and improvement in the mental state always secondary to physical improvement. This was mainly due to the tonic action of the arsenic, and not to any spirochaeticidal effect. Exacerbation of symptoms frequently occurred after the first two or three injections. In tabes the results were disappointing and pain was not relieved. Malarial treatment gave better results. Tryparsamide is better than salvarsan in cerebro-spinal syphilis.

J. R. LORD.

*The Bromide Treatment for Epilepsy in the Dispensary. (Arch. of Neur. and Psychiat., March, 1929.) Diethelm, O.*

The author starts treatment with slowly increasing doses of bromide, luminal being administered at the same time in amount sufficient to control the attacks. After having established a sufficient storage of bromide in the body, the aim is to maintain a constant bromide-chloride equilibrium. A diet low in salt increases the influence of bromide. Observing the effect of the bromide and noting improvement, one may decrease the luminal gradually and eliminate it entirely or continue it only in small amounts.

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