

Dr. Gray then says what we should hesitate to say of English suicides. "Suicide is always an unnatural act, but in the large proportion of cases, if not the majority, it is committed by sane people."

Dr. Gray replying to the question as to the *differentia* between sane and insane suicides, says, "Delusion is the test and touchstone in the diagnosis of insanity. Now this state being present would determine the character of a suicide. But the person committing the act may not have left a record of his reasons in anything said or written. In such a case the judgment must be formed on the circumstances and history of the individual." Dr. Gray does not allow for the cases of suicidal insanity in which there is no delusion, because he does not believe in them.

(To be continued.)

2. *French Retrospect.*

By DR. T. W. McDOWALL.

(Continued from p. 321.)

Nocturnal Epilepsy.—By Dr. Echeverria.—A paper, in English, on the same subject appeared in this Journal, vol. xxiv.

The Comparative Effects of Chronicity and Heredity in the Determination of Certain Types of Insanity.—By Dr. Billod.—"Thanks to the labours of Morel, we are now able, with certain cases of insanity, and without any knowledge of the antecedents of the patients, to say 'there are, or have been, lunatics in the family,' and almost always correctly. I say almost always, for there is a very small number of cases in which it is not found to be true, and in which the mental disease assumes all the characters of hereditary insanity, and yet there is no hereditary taint. This is the point I wish to prove, by a selection of cases, and by appealing to the experience of my colleagues, to know if, in the course of their experience, they have not met with similar ones.

"The number of cases which I have observed up to the present time, in which I have found united the characters of a hereditary insanity without there being discovered either in the direct or collateral progenitors, any case of mental, cerebral or nervous disease is not large, since in more than 15,000 lunatics who have come under my observation it does not exceed 15."

We have read the whole paper with the greatest attention, and yet without any profit. So far as our observation goes, it is quite impossible to diagnose the existence of hereditary taint by mental symptoms alone; neither do we believe that hereditary cases present any special features. The cases recorded by Dr. Billod as presenting features of hereditary insanity may do so; but we certainly could not have discovered the fact for ourselves. When we remember how

external circumstances affect the mental manifestations of lunatics, how, in fact, insanity as observed in asylums is not genuine lunacy, but the disease toned down by a variety of circumstances, we wonder at a paper being written on any *mental* symptoms at all. We are reminded of the pretensions of those who professed to be able to diagnose cancer by the facial expression. They were as often wrong as right.

The Progress of General Paralysis in the Hereditarily Insane.—

By Dr. Doutrebente.—In this short note the writer defends himself from the strictures of Dr. Montyel. When we read Dr. Doutrebente's paper we did not think that he succeeded in proving that "general paralysis is not one of the *vesaniæ*, and that consequently hereditary tendency to mental disease is not able of itself to produce general paralysis." We do not agree with the statement that "general paralysis is very rarely observed in a family with a hereditary tendency to simple insanity, and, in such exceptional cases, the general paralysis assumes the chronic and remitting form."

Some of the cases of general paralysis referred to in these papers are so chronic that a doubt cannot be stifled that there may be an error in diagnosis. For a case to continue for 22 years is beyond credence. We say this, not with any intention to offend, but because that in this country also, errors are of frequent occurrence, even by asylum physicians. Did this statement require proof, it would be easy to tell some amusing stories how grave and learned doctors have condemned patients to a slow and miserable death, and yet doctors and patients lived long enough to know that a mistake had been committed by some one.

Atropine in the Chronic Enteritis of Lunatics.—By Dr. Paul Moreau, of Tours.—In two cases of obstinate diarrhoea very satisfactory results followed the use of atropine in doses of 1-1½ mm. in pill. The treatment was continued from 4-6 weeks. Dr. Moreau is tempted to bring this form of treatment under the notice of his colleagues on account of the disease carrying off such a large number of patients every year in French asylums.

Clinical Cases.

1. *General Paralysis due to Lead?*—M. Doutrebente.—*Summary.* Father died of cerebral symptoms; intelligence limited; slight lead symptoms, rapid invasion; two congestive attacks (vertiginous), exalted delirium, incoherence, amnesia, dipsomaniacal and erotic impulses; two months' residence in asylum, incomplete remission; recovery.

2. *Marked symptoms of General Paralysis, recovery.*—M. E. Galceran.—*Summary.* Exalted delirium, impediment in speech, trembling of limbs, tottering gait, aggravation of symptoms, bed sores over sacrum and trochanters, involuntary erections; three attacks of cerebral congestion, death imminent, gradual disappearance of the symptoms; recovery, which has continued two years.

3. *General Paralysis, recovery.*—*M. Galceran.*—*Summary.* Attacks of cerebral congestion, with transient hemiplegia; mental enfeeblement, exalted delirium, impediment in speech, inequality of pupils, unsteady gait, attacks of cerebral congestion; gradual improvement, recovery; discharge after 10 months' treatment; recovery continued for a year.

4. *"Folie à double Forme Paralytique."*—*M. Galceran.*—*Summary.* Strabismus, diplopia, drooping of the right upper eyelid, first melancholic, then exalted delirium, impediment in speech, tottering gait, trembling of limbs, pneumonia; rapid and complete convalescence.

5. *Exalted Delirium during Convalescence from Typhoid.*—*M. Lionville.*—*Summary.* Æt. 21, typhoid fever of three weeks' duration, exalted delirium; continuance of delirium when discharged.

6. *General Paralysis in the Aged.*—*M. Baillarger.*—*Summary.* Mental enfeeblement at the beginning, trembling of the limbs, impediment in speech, erysipelas of face, general enfeeblement, gangrenous phlyctæna, contraction of limbs; death. Adhesion of the membranes to the superior and middle part of the right hemisphere. Dilatation of the circle of Willis, dilatation of the lateral ventricles, ventricular granulations, remains of old hæmorrhages into the corpora striata, hypertrophy of the left ventricle of the heart, dilatation and ossification of the aorta, fatty liver, tumour of ovary.

7. *On Functional Exaltation at the beginning of General Paralysis.*—*By Emmanuel Régis.*—The Esquirol Prize for 1879 was awarded to this paper.

After some introductory remarks, the author proceeds with his subject under five different heads. The first is: The dynamic phenomena at the beginning of general paralysis result from cerebral irritation; their variations correspond to analogous variations in the original lesion.

Whatever may be the essential nature of this disease, whether a chronic inflammatory congestion, or a genuine sclerosis, he considers that it is not the less true that the initial phenomenon consists in irritation of the cerebral elements due to—1st, stimulation of the faculties (? "propriétés"); 2nd, increase of the nervous influx; 3rd, excitation of the receptive apparatus; 4th, increased activity of the apparatus.

Thus the excessive activity of the organism is only the last of a series of changes, having cerebral inflammation as the primary cause. When the irritation is slight, the functional excitation is slight; when intense, the phenomena are more marked. Acting upon the whole economy, diffuse irritation of the brain induces an excess of activity in all the organs; when it is more limited, the symptoms are less in degree and extent.

The second division of the paper is devoted to a general conception of these phenomena, and their features in common. The state of inflammation in which the cerebral organs are supposed to be, main-

tains them in a constant state of erethism, and thus we can explain how they can for lengthened periods exhibit an activity far above the normal.

Generally speaking, intimate solidarity with the cerebral lesion, impulsive form, increased intensity and continuity, with preservation of functional tonus; such are the distinctive characteristics of the dynamic phenomena of general paralysis in its early stage, whatever may be the exact locality of the nervous lesion.

III.—The special characters in the chief functions affected.

We may pass over the remarks on (a) the intellectual and affective functions; (b) the muscular and locomotor functions; (c) the reproductive functions; (d) alcoholic excesses; they are largely composed of extracts from various writers, and contain no new suggestions.

As to the vegetative functions, he concludes, from observations of his own—

1. The functional exaltation at the beginning of general paralysis, when it is pretty well marked, causes a constant elevation of temperature, and at the same time an increase in the pulse and respirations.

2. This elevation and increase are chiefly marked in cases of multiple exaltation, or of physical exaltation, with increased motor activity.

3. The increase of temperature is one degree and some tenths (centigrade); the pulse may reach a maximum of 100, the respirations a maximum of 40.

4. This elevation and increase disappear with the functional exaltation. In a case in which the latter suddenly disappeared for several days, the former did so also during the same time.

In illustration of his paper the author gives a large number of cases. These may be passed over, that we may give his conclusions at length.

1. Very frequently general paralysis begins by a state of exaltation or “*dynamie fonctionelle*,” during which the functions of the organism undergo, simultaneously or separately, an increased activity.

2. This functional exaltation is the result of the irritative process which goes on at this time in the brain; between these there is an intimate solidarity: they exhibit the same progress and features.

Intense when the irritation is intense, slight when the irritation is slight, this exaltation extends to all the functions, or is limited to a few or one only; according as the irritation is general, or more or less localised, it appears and disappears with it. We may admit that the exalted functions belong to the morbidly affected brain centre.

3. Which ever function may happen to be affected, these phenomena of exaltation are characterised by their intensity, their persistence, and their generally impulsive nature. However intense or prolonged their exaltation may be, the functions never exhibit any apparent fatigue.

4. Intellectual exaltation affects by preference those predisposed by their birth, education, or profession. It manifests itself by an

incessant and irresistible intellectual activity, along with, in certain cases, a more or less marked exaltation of the affective sentiments.

5. Physical exaltation, not less frequent, affects chiefly the locomotor function. It is evidenced by an incessant and irresistible desire for movement, and by repeated attempts to escape when the patient is placed in an asylum.

6. Sexual excitement presents the same features of frequency and irresistibility. The patients experience immoderate, insatiable desires, and do not hesitate at any means to satisfy them.

7. A certain number of patients, until then strictly sober, become guilty of violent alcoholic excesses. These excesses assume the impulsive type of dipsomania; they are most frequently caused by the incessant necessity for action which they experience, and very probably also by irritation of a special part of the brain.

8. The organs of vegetative life also suffer from this functional exaltation in various degrees. The temperature may reach a maximum of 38·5 (cent.), the circulation a maximum of 100, the respirations a maximum of 40; hunger and thirst are equally increased. The amount of urea contained in the urine is not sensibly modified; but the urine may contain a certain quantity of glucose, a fact which would indicate the extension or localization of the irritative process to the centre of the glycogenic function, in the floor of the fourth ventricle.

9. The study of this period of prodromic exaltation of general paralysis is really important; acting at a time when the symptoms leave room for doubt, it may complete the diagnosis, lead to the adoption of treatment the more useful because of its promptness, and, lastly, modify the prognosis of a disease regarded as incurable, perhaps because it has hitherto only been studied and treated during a stage far removed from its real commencement.

Clinical Cases.

General Paralysis.—Summary. Sudden attack of insanity, with maniacal excitement and extravagant delusions, but without any impediment in speech or disorder of motility; considerable aggravation of the symptoms on the eighth day; acute delirium, death on the thirteenth day. Anatomical lesions of general paralysis.

Two Cases of Ovariectomy followed by Delirium.—1. Æt. 32; delirium appeared on third day after operation; hallucination, fever; death in 86 hours.

2. Delirium on eighth day after operation; exalted ideas, hallucinations of sight and hearing, intense fever, death on the sixth day; anatomical lesions of meningo-encephalitis.

General Paralysis and Locomotor Ataxy.—Summary. Excesses of all kinds, syphilis, excessive fatigue during the war of 1870-1; fall on the head in 1873, progressive locomotor ataxy treated by antisiphilitic remedies, general paralysis.

Congestive Insanity of Syphilitic Origin.—Summary. Headache, paralysis of the third pair, sudden loss of consciousness, unfitness for work, indifference, incoherence, muscular excitement, stiff and awkward gait, hallucinations of sight and hearing; specific treatment, rapid recovery. This case is taken from M. Fournier's book on Cerebral Syphilis.

The Gyrus Angularis neither the Seat of the Perception of Visual Impressions, nor the Centre of the Movements of the Eyes.—Dr. Clovis Gallopin.—These two cases are recorded to combat Ferrier's statement relative to the motor functions of the gyrus angularis.

The first was admitted to the Evreux Asylum in 1867, and died in 1878, of phthisis. He laboured under melancholia, and sometimes did not speak for several months. The brain weighed 1,280 grms. The cortical substance of the anterior half of the first and second right frontal convolutions was yellow and softened. On a level with the gyrus angularis the pia mater was adherent to the cortical substance, which was reddish, and softened chiefly in the superior half.

The second was that of a man, aged 61, admitted in 1878, suffering from dementia, brought on by long continued drunkenness. There was no paralysis. In a few days he became violently excited, and was found dead in bed six days after admission.

The following were the pathological conditions observed at the post-mortem :—

The bones of the skull are much thickened.

Meninges.—Upon incision of the dura mater it is observed that clots are attached to its internal surface. They are from 5 to 8 centimètres long, 2 or 3 broad, 1 or 2 millimètres thick, and cover the larger portion of the internal surface of the left half of the dura mater. On the right side, the clots are much less numerous. After the clots were removed by washing, it was observed that the internal surface was intensely congested, and lined by very thin neo-membranes containing in their thickness numerous small hæmatomas, varying in size from a pin's head to a lentil. The meshes of the pia mater are infiltrated by bloody serum, which is most abundant over the left sphenoidal lobe, and the circumference of the left hemisphere of the cerebellum. The veins in these regions are gorged with blood.

The pia mater strips easily. The vessels at the base are not atheromatous.

Right Hemisphere.—At many points the cortical substance is the seat of an alteration, which consists in a pinky-yellow colouration, and in a softening so marked that the brain substance is completely washed away under a small stream of water. The points so affected are the following :—The gyrus angularis in its whole extent, posterior third of the first temporal convolution, posterior half of the second and third temporal convolutions, posterior extremity of the superior parietal lobule, and anterior extremity of the first occipital convolution to the extent of a franc piece.

The cortical substance of the gyrus hippocampi, of the "crête" convolution and of the internal surface of the first frontal convolution are injected, and of a rosy colour.

In other respects the right hemisphere is normal.

Left Hemisphere.—The cortical substance presents alterations similar to those already described in the right. Marked vascular injection with softening of the cortical substance, exists at the following points:—Inferior third of the two central convolutions, anterior third of the (lobule of the) gyrus angularis, posterior half of the first and second temporal convolutions, anterior half of the first and second occipital convolutions.

A. Joffroy, De la neurite parenchymateuse spontanée généralisée ou partielle. "Archives de Physiologie," 1879.—The term of "spontaneous neuritis," includes those cases of neuritis, which are not of traumatic origin, and which do not arise from a central lesion or by propagation from other parts. Thus, sciatica is a common example of partial neuritis, when connected with muscular atrophy and the reaction of degeneration. Joffroy does not allow the central origin of paralysis in lead-poisoning, and classifies the nervous lesion as "toxic" partial neuritis. His third class includes those cases in which a set of nerves is affected after acute infectious diseases. As an instance of this class, he gives a case of a woman with small-pox, succeeded by neuritis of the brachial nerves, with pain and subsequent degeneration and atrophy of the muscles. Various sensory disorders are observed in the great majority of partial spontaneous neuritis, but only rarely in lead-poisoning, and then only in a much milder degree.

The second group he terms "general parenchymatous neuritis." The existence of such cases is denied by some authors, but Joffroy gives a case of his own, and quotes two reported by Lanceraux and Denos and Pierrot. His patient, a woman with phthisis, was admitted to hospital on account of loss of power in the lower extremities, so that she could not walk. The upper extremities, cutaneous sensibility and sphincters were unaffected, but there was considerable diminution of the muscular sense. Afterwards the paresis spread to the upper extremities, and all four limbs grew ataxic, atrophied, and lost their electric irritability. A very careful autopsy did not reveal anything abnormal in the spinal cord, the meninges or anterior and posterior nerve-roots. On the other hand, the atrophied muscles were found to be in a state of advanced degeneration, and likewise the nerves. In two out of the three cases mentioned above, there was nothing of the severe pain which was met with in partial neuritis.

The slightness of the symptoms at first, and their invariable, though slow advance, aids in the differential diagnosis of the disease from the Poliomyelitis of adults.

EDWARD G. GEOGHEGAN.