some very striking results, and leaves the impression that the same remedy might be administered in most cases of imbecility with advantage. And perhaps a similar amelioration might be expected in those cases of imbecility which, on showing some progressive mental and physical symptoms, might well prove themselves to be cases of juvenile general paralysis.

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The Clinical Simulation of General Paralysis of the Insane.

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IT happens not unfrequently that a provisional diagnosis of general paralysis is made in the insane, which the subsequent course of the case fails to confirm. In the three cases on which this paper is based a diagnosis of general paralysis was made, in one of them quite confidently, and in the two others only as a last resort, because the course of the disease presented so many unusual clinical features. These three cases are specially interesting because a *post-mortem* examination was made on each of them, and so permitted of a confirmation or otherwise of the diagnosis, and also on account of the very interesting pathological findings.

A. B—, female, æt. 62, admitted November, 1911, died May, 1912; duration on admission said to be one week only. On admission she was very dull and confused, had a weak, unsteady gait, and general tremors; knee-jerks were dull but equal; pupils equal, and reacted both to light and accommodation; pulse 76. When I saw her on February 15th, 1912, she was weak, very unsteady on her legs, tremors of tongue

were very marked, speech very slow, deliberate, and slurred, knee-jerks dull but equal, pupils equal and reacted both to light and accommodation, pulse 64. She was unable to attend to her bodily wants. Mental condition too dull for intelligible answers to be given.

A fortnight later she had what was described to me as a typical congestive seizure, and on the following day the head and eyes were still turned towards the left. I then considered the possibility of a cerebral hæmorrhage, but the signs cleared up too quickly. I attached no importance to the short history given on admission, and looked upon her as probably a case of general paralysis. I did not see her again after the month of March, and she died in May, becoming gradually more feeble, and being finally unconscious for twenty-fours before death.

I was not present at the *post mortem*, where a tumour of the size of a Tangerine was found pressing on the left frontal region, and hanging by a small stalk from the pia in the neighbourhood of the optic chiasma. When I look back upon the case it is clear that certain features, to which I did not then attach sufficient importance, do not seem to agree with a diagnosis of general paralysis; for instance, she was always dull and drowsy, with a pulse of about 60, the deep reflexes were only a little blunted all round, but quite normal otherwise; and also her sex and age were against general paralysis of the insane. On the other hand, it must be remembered that there were no localising signs, such as paralysis and alteration of the deep reflexes, and there was no vomiting. Her very unsteady gait was probably due to vertigo, of which she could not complain. She had never complained of headache in the first part of her illness, and, as cerebral compression was not suspected, the fundus of the eyes was not examined, and such an examination is never an easy performance in a lunatic.

The tumour itself was very interesting. It was the size of a Tangerine and was made up of a collection of cysts as big as marbles, with translucent walls and each containing a clear, thick, colourless fluid like the white of an egg. In the walls of the loculi was a variable amount of denser tissue containing small masses of a cream-coloured, opaque substance, which looked like caseous material to the naked eye. Microscopically, the walls of the cysts are made up of layers of polygonal cells, which are from two to twenty deep. These cells resemble those of the Malpighian layer of the skin, and as they approach the lumen of the cyst tend to assume a more and more cylindrical character until the lining cells of the lumen are definitely columnar in

type, but lack a basement membrane. In a few rare places these cells are elongated, and form definite whorls arranged round some similar cells in their centre. The cysts themselves contain some colloid material, which has solidified in places, and there is undergoing organisation. The gritty, caseous-looking particles are whorls of large granular cells, whose nuclei are mostly represented by an empty space, and which stain a bright yellow with Van Gieson's stain. These whorls are of all sizes, and in only one instance was a blood-vessel seen running through its centre. Although the two kinds of tissue exist side by side, no obvious transition can be seen of the cells of one kind of whorl passing into those of the other.

B. C—, female, æt. 49, admitted 1908, died 1912. History was defective, but she had been looked upon as eccentric for the last twenty years. On admission she was confused and emotional, had an impaired memory, and an exaggerated sense of well-being. She showed most of the physical signs of general paralysis—*e. g.* knee-jerks exaggerated and unequal; pupils also unequal, and reacting very poorly to light; tongue tremulous, speech slurred, etc. In addition to restlessness, she showed a tendency towards choreiform movements, especially as regards the head and arms. Her subsequent history is one of gradual mental and physical deterioration, and she was soon quite demented.

We always looked upon her as a case of general paralysis, and it was not until towards the end of her illness that the slight choreiform movements, which still persisted in the head and arms, impressed me as being of diagnostic significance on account of their stereotyped character, and the probability was only then recognised of her being rather a case of chronic chorea, if not actually of Huntington's chorea.

At the *post mortem* nothing was found with the naked eye, or later microscopically, to confirm the earlier diagnosis of general paralysis, the morbid appearances being only those of an ordinary case of chronic insanity.

An attempt was made to elucidate her family history, but no evidence of chorea or insanity in her family was obtained, the information gathered being very unsatisfactory.

C. D—, female, æt. 40, admitted April, 1911, died in September, 1911. She had a previous attack six years previously. Her only child was born three and a half years before, and since then she had undergone three uterine operations, apparently curettings.

On admission she was excited, showed marked delusions of grandeur, and was very emotional. She was very anæmic; gait unsteady; speech

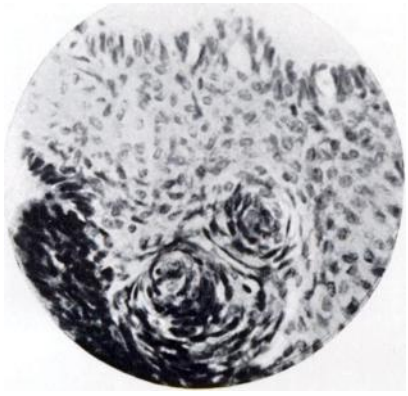

FIG. 1 (Case 1).—Main tissue of tumour giving rise to whorls and to a columnar pseudo-epithelium. Note tendency to cyst-formation beneath latter. Magnified ⅓ in. × No. 4 oc.

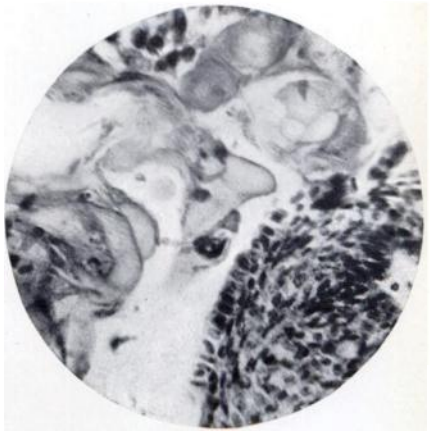

FIG. 2 (Case 1).—Both kinds of tissue shown side by side. Nuclei of large cells practically non-existent. Magnified same as Fig. 1.

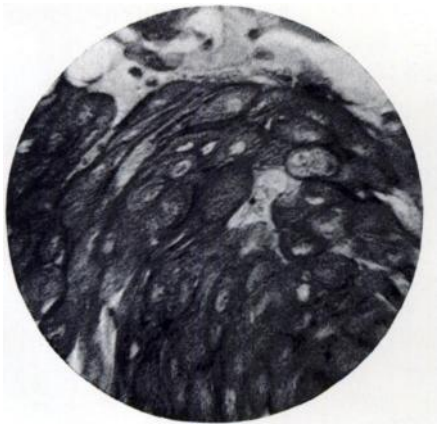

FIG. 3 (Case 1).—Part of large whorls. Magnified same as Figs. 1 and 2.

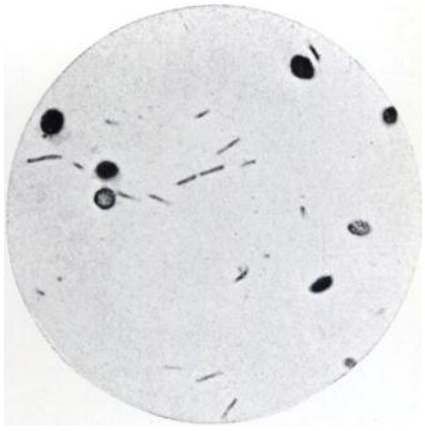

FIG. 4 (Case 3).—Organisms in brain, mostly in pairs. × 750.

To illustrate Dr. J. R. PERDRAU'S paper.

Adlard & Son, Impr.

slow and deliberate; deep reflexes much exaggerated; reaction of pupils to light normal; general tremors fairly well marked, especially of lips; calf muscles tender to pressure, etc. In view of these signs, the possibility of her being a case of general paralysis was not lost sight of from then onwards. She was a little quieter at first, but not for long, and later became very emotional, and was very depressed at times. She became gradually weaker and more ataxic, complained of pain in the back, and required some help to walk. Towards the middle of August, from being intensely exalted and emotional, she became quickly stuporose, and had to be kept in bed. She lost control over her sphincters, sensation became much blunted, blebs formed on the heels, and she developed diarrhœa with pyrexia. Both the latter—*i. e.* the diarrhœa and the fever—increased and were present until death.

There was nothing to suggest dysentery or any ordinary fever. Typhoid was excluded clinically, and by the Widal reaction; a blood-count, total and differential, showed an increase in the eosinophiles only. She developed great difficulty in swallowing towards the last, death resulting from complete exhaustion in September, some hyperpyrexia being present towards the end.

We were allowed to make a *post-mortem* examination of the brain only. No signs of general paralysis were found with the naked eye nor subsequently by the microscope. Membranes were quite normal, not even congested; cerebro-spinal fluid normal. The only unusual feature was several small pink areas on the surface of the cortex of the cerebral hemispheres, especially over the vertex. Although the *post mortem* was held well over twenty-four hours after death, the brain was well preserved. Pieces of the brain were fixed in the usual way. The most obvious microscopic appearance was complete chromatolysis, together with the presence of a large bacillus scattered generally through the brain-matter, both grey and white. As it was too late for attempting a culture of the organism, its identification became impossible. It was, however, Gram-negative and non-acid-fast, stained evenly, possessed slightly rounded ends, and was seen to be often in pairs.

We were then no nearer a solution of the nature of the disease she had suffered from, and there matters remained until some eighteen months later, when cases of pellagra were reported from various asylums in this country. One feature in the appearance of the patient, which we had thought too trivial to mention in the case-book, was then recalled. She had shown an extreme condition of "sunburn" of the backs of both hands and also of the face, especially of the forehead. It was all the

more remarkable as she was admitted in early spring, and although she did not go out of doors much in the latter part of her illness, the condition progressed, and towards the end the skin of the back of the wrists was beginning to crack. The "sunburns," the time of onset—*i. e.* early spring—the peculiar mental and nervous signs, and the terminal diarrhœa are, to say the least, very suggestive. As regards the micro-organisms, I should not like to say more than merely record their presence some twenty-four hours after death, as the possibility, if not probability, of a *post-mortem* dissemination must be remembered. Besides, if the organism was at all connected with pellagra, it would be very extraordinary indeed if it had not been observed before, as it stains easily with aniline dyes, and is visible even with the low power of the microscope. On the other hand, the pink areas on the surface of the brain seem to point to a vital reaction, *viz.* an encephalitis, although these areas could only be recognised with difficulty under the microscope by their congested vessels. The terminal hyperpyrexia and complete chromatolysis also seem to point to the same conclusion.

In these three cases, who all died in 1912, a negative Wassermann reaction would undoubtedly have set one on the track of some other disease, but opportunities for this and other serological examinations were not then available.

That the three diseases here considered do resemble general paralysis has long been known, and frequent reference to that fact is found in medical literature. Mott (1) says that pressure of a tumour, usually an endothelioma, on the left frontal region of the brain may produce a condition resembling general paralysis. He also mentions the fact that such tumours may show close resemblance to a carcinoma, owing to their alveolar character.

It is especially in Huntington's chorea that a resemblance is most marked, and in asylums it is not uncommon to find in such cases that a diagnosis of general paralysis had been made on admission some twenty to thirty years before; whilst some writers have even gone so far as to suggest that Huntington's chorea is a hereditary form of general paralysis.

In the second case under review a history of hereditary predisposition was not obtained, and it would seem as if Huntington's chorea cannot be differentiated clinically from isolated cases of mild chorea with stereotyped movements and insanity.

There is now in the Dorset Asylum an old woman, who shows marked stereotyped movements, who, on admission at the age of thirty-eight in 1873, suffered from a recent right-sided hemiplegia, which only began to clear up some ten years later, when she was found to show all the typical signs of general paralysis, and was then looked upon as a case of that disease. Choreiform movements, chiefly of head and arms, began to appear then and have persisted ever since. In her case, too, no evidence of hereditary chorea can be obtained.

Osler (2) thinks that these isolated cases of chronic adult chorea are indistinguishable from Huntington's chorea, and should be classed with the latter.

In cases of pellagra, too, its occasional close resemblance to general paralysis has been often referred to. Tanzi (3) describes special forms of that disease under the names of pseudo-progressive paralysis, pseudo-tabes, etc. It is interesting that he refers to the terminal diarrhœa as a pseudo-typhoid.

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Occasional Notes.

The Sixty-eighth Report of the Commissioners in Lunacy for England and Wales, 1914.

FROM the tone of this report it is surmised that its successor will be of somewhat different form and substance. Indeed, it would appear to contain both its own obituary notice, and a *lettre d'envoi* of a new form of report to come.

It is thus with not a little feeling of regret that we peruse its pages, knowing that it is for the last time we can linger over its courteous and strictly accurate language, and absorb something of the sincerity, the sense of responsibility, and dignity which imbues the body whose work is there recorded.

The disappearance of the old Board of Commissioners and its submergence in the newly created Board of Control is a definite landmark in the history of the progress of psychiatry

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