In searching for other examples of the condition which they describe they have found recorded as leontiasis ossea specimens showing nodular hypertrophy of the facial bones which they believe to be of syphilitic origin. The point of distinction is the smoothness of the surface in true leontiasis ossea.

C. P. S.

PROGNOSIS AND TREATMENT.


The author comes to the following conclusions:—

1. General paresis is an active spirochetal disorder which, theoretically, can be arrested.

2. Despite a great divergence of opinion as expressed in the literature, there is considerable evidence that long-continued and intensively given antiluetic treatment will arrest the paretic process in a reasonable percentage of cases, especially if begun early in the disease.

3. In the Boston Psychopathic Hospital the experience has been that antisypilhitic treatment is of considerable value in cases of general paresis and that many paretics, even after the onset of marked psychotic symptoms, may recover sufficiently to resume their former occupations for a period of years, in some cases for more than seven years, without a return of symptoms.

4. Remissions may result from the use of intensive intraspinal or intraventricular injections when these apparently could not be obtained from intensive intravenous treatment alone.

5. More potent antisypilhitic drugs and more efficient methods of penetration of the drug into the tissues of the central nervous system may be expected to give better results in cases of general paresis.

6. Non-specific therapy, especially the inoculation of paretics with malaria, is reported in the German literature to give very satisfactory clinical results. It is necessary to keep an open mind at present on the value of non-specific therapy and methods of increasing the patient’s immunity.

7. There is reason to believe, both from the reports in the literature and from personal experience, that the paretic process may be arrested, symptomatology halted, and the patients returned to social activities and productive work.

C. S. R.


General paresis became established as a disease entity with a characteristic pathology in 1904, as a result of the work of Nissl and Alzheimer. As Alzheimer points out, there is rarely any difficulty in differentiating paresis from non-syphilitic brain disorders. However, in the case of syphilitic brain disease the differentiation is by no means so easy. The distinction between chronic tertiary syphilitic meningo-encephalitis and general paresis is at times very difficult, if not impossible. It would seem as if the line of demarcation between these two conditions is one of degree, and that at times the one disorder merges into the other. A pathological study of brains from cases
diagnosed as general paresis shows marked differences macroscopically and microscopically. One may find evidence of true tertiary syphilitic lesions in the form of gummas throughout the brain. Lissauer’s type, consisting of focal lesions dependent largely upon the vascular changes, must also be considered. It is difficult to make the diagnosis of paresis from the clinical picture alone. Paresis may assume the characteristics of any form of mental disorder, and the neurological signs may be essentially wanting. On the other hand, many other forms of cerebral pathology may give a clinical picture quite suggestive of paresis, and the aid of serological findings is a necessity. Recent work has established without any reasonable doubt the frequency of spirochetosis in typical cases, but from the observations of Noguchi and Moore it has been presumed that the spirochaete was in a position that could hardly be reached by antisypililitic drugs. The work of Jahnel, Jakob, and Valente tends to support the hypothesis that there is a direct relationship between activity of the spirochaete and the pathological and clinical phenomena. The generally accepted rule is that cases of paresis will give a uniformly positive finding in the cerebrospinal fluid, and there are many differential points between paresis and other forms of neurosyphilis. Atypical findings, however, sometimes occur and perhaps more especially so in cases of stationary paresis, or in cases of endarteritis of the cerebral vessels. Just what happens in cases during remission is of great theoretical interest, but has not been satisfactorily established. It is to be assumed that the activity of the spirochaete becomes lessened either as a result of the lack of virility on its part or due to the proliferation of immunity bodies by the host. The writer thinks that it is an erroneous assumption to suppose that paresis is incurable and does not agree with the dictum of Head and Farnsides that the spinal fluid does not become negative within six months.

As to therapeutic possibilities, it is believed that some satisfactory results may be obtained in many cases where the parenchymal degeneration is very slight. It is a question as to the possibility of destroying the spirochaete. Two modes of attack present themselves: (1) The use of the anti-spirochetal agents which will reach the spirochaetes in the central nervous system, and (2) an increase of immunity reaction on the part of the host. There is great difficulty in reaching the deep-lying tissues of the central nervous system, but arsenic gets into the cerebrospinal fluid when introduced into the blood-stream, and such drugs should produce results upon spirochaetes in the meninges and in close proximity to the blood vessels. Solomon and Taft have shown that antisypililitic treatment produces changes in the histological picture in paresis. The problem is to find the best method of applying such remedies. It may be that where there is damage to the choroid plexus arsenic may more easily reach the cerebrospinal fluid. Aside from simple intravenous or intramuscular medication, there is a possibility of the direct introduction of drugs into the cerebrospinal fluid system. Where the effect is desired upon the brain tissue the latter method is the more satisfactory. Dercum’s method of spinal drainage has also to be borne in mind. There is a divergence of opinion as to the results obtained by increasing the resistance of the patient by the injection of non-specific proteins or other...
substances (tuberculin, sodium nucleinate, organisms of relapsing fever, or of malaria) which produce hyperleukocytosis. We must be cognizant at all times of the possibility of the combination of a practically latent neurosyphilis and a psychosis. Though stationary paresis occurs spontaneously only very rarely is it seen so much more frequently in patients that are treated compared with those who are not that one cannot avoid the assumption that treatment was responsible for halting the progression. All observations show that something is accomplished by the antisypililitic treatment of pareties, although not all that might be desired.

C. S. R.


CONSIDERING the good results which are being reported from the pyrexial treatment of syphilitic diseases of the nervous system, the report of the effects of employing a similar principle in the treatment of disseminated sclerosis has, at the moment, a special interest. From January 1919 till January 1922, Grosz treated fifty-nine cases in this way, thirty-nine by means of weekly injections of a staphylococcal vaccine and twenty by weekly injections of typhoid vaccine. The dose injected on each occasion was calculated to produce a febrile reaction. With staphylococci the reaction was rarely severe, but with typhoid cultures it was usually sufficient to make the patient feel ill for a couple of days.

The results are encouraging, 30·6 per cent. of the cases showing great improvement. The author faces squarely the difficulty of trying to evaluate treatment in disseminated sclerosis owing to the natural variations of the disease, and he lays most stress on improvement in cases of the slow, steadily progressive type, which had shown no tendency to remission; eight out of twenty-nine such cases were greatly benefited, a percentage of 27·6.

In twelve patients who have been followed up till the time of publication, i.e., for periods varying between six months and two years, the improvement has been well maintained, and almost all these patients are carrying on their work.

J. P. Martin.


SOMewhat at length the author reviews the use of hypnotic drugs in nervous affections, and the risks involved. The following practical recommendations are made. Sodium bromide (3 grams) is advised for neurasthenic sleeplessness, and should be taken some hours prior to retiring. After about a week some days should intervene without the drug, which can then from time to time be again administered. Adalin, bromural, and neuronal are also regarded as suitable, but discontinuance now and again is thought well. In the insomnia of anxiety states codeine phosphate and bromide of soda are advised, afterwards being replaced by luminal, veronal, or medinal. In
extreme mental excitement, hyoscine up to \( \frac{1}{2} \) mg. hypodermically is useful, but any stronger dose must be used only with special care, and as soon as possible drugs by the mouth, such as veronal, trional and paraldehyde, should be given instead. In cases of delirium hyoscine is often prompt in its action. Where any organic disease of the nervous system causes sleeplessness, pain is commonly its source, and here it is well to combine salicylates with veronal, or the proprietary drugs, such as veronacetin or codeonal, may be given. In extreme pain pantopon injections may be administered.

D. M.

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**Endocrinology.**


It has been urged by various observers, especially by Schlesinger in Austria and by Sunji Ulmura in Japan, that the pineal, although in great measure degenerated after puberty, continues to show histological signs of activity up till old age. In that case pathological changes in the gland may give rise to at least three groups of signs and symptoms: (1) those due to disturbance of function of the gland itself; (2) those due to its mechanical action on neighbouring parts of the brain; (3) x-ray appearances, i.e., shadow due to calcium deposits in the gland.

With regard to the symptoms of the first group, there is a great deal of uncertainty and contradiction, and Luce does not attempt to unravel the tangle, but passes on to the symptoms of the second and third groups. As the criteria for diagnosis of tumour of the pineal gland, he gives the following: the appearance in a young subject, in addition to the general signs of intracranial tumour, of (1) unusual increase in height, exceptional growth of hair, adiposity, drowsiness, precocious sexual development, and perhaps mental precocity; (2) partial ophthalmoplegia, static ataxy; (3) a circumscribed shadow (due to calcium) in the position of the pineal gland.

There are, however, cases of illness of pineal origin in which no tumour is present, and the writer draws particular attention to a group of cases in which young patients some months after a concussion of the brain begin to suffer from vomiting, fits, adiposity, with arrest of growth and of sexual development; no signs of organic change in the nervous system are found on clinical examination, but the skiagram of the skull shows a small irregular shadow in a position corresponding to that of the pineal gland. In such cases, according to Luce, the pineal (in company probably with the pituitary and the grey matter round the aqueduct of Sylvius) has been damaged by the concussion; calcium salts have been deposited in the damaged pineal tissue, and the gland, enlarged by swelling and made heavier by the deposited calcium, presses on the roof of the aqueduct, and thus interferes with the passage of cerebrospinal fluid from the third ventricle. In this way all the symptoms may be accounted for. Some of the cases, one of which is described, respond excellently to treatment with mercury.