spinal syphilis is accompanied in a large percentage of cases by gastric hypersecretion. Organic lesions of the spinal cord or brain often cause delayed gastric motility, and probably abnormal gastric peristalsis. These two conditions presumably predispose to gastric or duodenal ulcer. Syphilitic arteritis may also play a rôle. Such ulcers as form are probably simple peptic and not syphilitic ulcers or syphilis of the stomach. The point of origin of the secretory and motor disturbances in the stomach and intestine is probably in the involvement in the pathologic process of the sympathetic fibres to these viscera in their passage through the dorsal spinal ganglions and posterior nerve roots. It is quite possible that the finding of a gastric or duodenal ulcer in tabes is a pure coincidence, and that there is no relationship of cause and effect between the two conditions.

R. G. Gordon.

TREATMENT.


In this somewhat dogmatic paper the author castigates modern brain surgery, and concludes that: (1) Brain tumours are among the most frequent neoplastic lesions; their growth is always progressive, and almost always leads to a train of terrible sequels and eventually to death. (2) There is only one form of treatment for tumours of the brain—operative removal—and this must be complete. (3) To obtain the best operative results, brain tumours must be diagnosed and localized in the earliest stages. (4) It is now possible to diagnose and localize practically every tumour, and in the early stages. When all other signs and symptoms fail in the localization, cerebral pneumography will make the diagnosis and localization with precision and without equivocation. And when a tumour is not present, it can be excluded by the same method. (By cerebral pneumography the author means x-ray photography after inflating the ventricles or spinal canal, or both, with air. This procedure, he points out, is only safe or justifiable when performed by skilled operators; but he claims that by alterations in the spaces so demonstrated the presence and localization of a tumour can almost infallibly be demonstrated.) (5) The operative approach will be dictated by the precise localization. The approach should afford adequate room, and it should be directly over the tumour. (6) After correct localization, all brain tumours should be dissected at operation. (7) Every effort should be made to cure the patient by complete extirpation of the growth. There is less mortality from carefully performed tumour extirpations than from unsuccessful explorations for tumours. When, for any reason, it is impossible or unjustifiable to remove the tumour, the maximum palliative relief should be given at the same operation. (8) Decompressions, ‘routinely’ performed, are among the most harmful and indefensible operations in surgery. They should never be performed for unlocalizable tumours. They are the exact equivalent of giving morphine for abdominal pain; the symptoms are masked until it is too late. (9) Decompressions should be performed only as a last resort—when the tumour cannot be removed—and then only after the location of the tumour
is known, for in half the cases of brain tumour no good can possibly be derived from a decompression. (10) Exploratory craniotomies for brain tumours are now scarcely ever indicated. The tumour should be precisely localized before any operative procedure is attempted. (11) Scientific accuracy must supplant guess-work in diagnosis and in directing the treatment. Early and accurate localization and thorough operative treatment will eliminate all unnecessary and harmful operations. The treatment of brain tumours can only be a direct eradication of the cause—prompt and efficient.

R. G. Gordon.


The author analyzes a series of cases both with regard to progress during the first three years and the condition at the end of the third year. He concludes that infantile paralysis affecting the upper extremity is milder and more amenable to improvement and cure than that affecting the lower extremity. Muscles in the upper extremity, under the treatment described, improve continuously for four years, the improvement being most rapid in the first year. In the lower extremity, improvement is also most rapid in the first year; but after the third year there is a tendency toward a slight loss of muscular power, especially marked in the lower leg, under the best conditions of intensive treatment that can be afforded in a public clinic where its object is the prevention of deformity and the avoidance of fatigue, and where muscular re-education is pursued throughout. The chief cause of this loss is deformity occurring in the lower leg.

The following causes tend to make the chance of recovery in the lower leg less favourable than elsewhere in the body, except in the abdominal muscles: (1) A tendency of the paralysis to be more severe from the start; (2) The frequent occurrence of deformity; and (3) The fact that in weight-bearing the greatest amount of strain is thrown on the muscles of the lower leg. The outlook in the tibials is particularly poor, and the more favourable condition in the peroneals explains the predominance of varus deformity. Operation may temporarily diminish muscular power, and improved function occurs before the improvement in muscular power shown by a technical examination.

The lessons to be learned are that deformity is to be prevented by every means in our power; that the evidence shows that early weight-bearing is detrimental to weakened muscles; and that the keynote of treatment consists in the preservation of paralyzed muscles and prevention of contraction of their opponents, the avoidance of fatigue in walking, and the preservation of a normal muscular balance between opposing groups as far as possible. With this closer analysis of the potential power of individual muscles to improve, and the general laws formulated with regard to the behaviour of individual muscles, it would seem that operation in a good many cases might be performed with benefit earlier than is now often done, and that it were safe to formulate the statement that deformity, stretching, and fatigue are the three worst enemies of good ultimate function in poliomyelitis.

R. G. Gordon.
ABSTRACTS


Headache is most commonly due to a rise of intracranial tension even in the case of those accompanying fevers and toxæmias such as those due to intestinal stasis. It has been shown that intracranial tension can be reduced by the administration of hypertonic solutions of salts either intravenously or by the mouth. Owing to its non-toxic properties and absence of purgative effect, sodium chloride has been the salt chosen, but difficulty has been found in giving large doses owing to the intolerance of the stomach. The author suggests giving 1-grm. tablets coated with salol, which pass unchanged through the stomach, the salt being liberated by the alkaline intestinal juices. Of these any number may be given up to thirty without toxic effect, except in cases of chronic nephritis, hypertension, and conditions of known salt intolerance. As a rule two or three are taken every five minutes up to eight or ten. The author claims therapeutic success by the method, and regards it as less harmful than treatment by the coal-tar products. He also suggests it may be valuable as a means of diagnosing between headaches due to hypertension and those due to other causes.

R. G. GORDON.

[16] Regeneration in the nervous system (La régénération du système nerveux).—Ch. A. PERRET. Arch. Suisses Neurol. et Psychiat., 1921, ix, 163.

This is a lecture, delivered before the Swiss Neurological Society, dealing with the results of surgical operations on the nervous system. The lecturer first reviews shortly the after-results of the surgical treatment of cerebral tumours, intracranial hemorrhage, and war wounds of the brain, and quotes statistics of the percentage of recoveries in such cases. He then deals rather more fully with the treatment of injuries of the cord, and cites among others a case published by Stewart and Charté where, after amputation of a completely divided cord, the patient regained sensibility, motor power, and sphincter control, and her deep and superficial reflexes returned. Unfortunately no reference is made to this case in the bibliography, which is otherwise very full.

Cases of section of dorsal nerve roots, of the auditory nerve, of the chorda tympani, and of the sensory part of the trigeminal, are described, as well as of suture of the facial within the temporal bone, and cross-anastomosis of the facial with adjacent motor nerves.

The greater part of the paper treats of the surgery of the peripheral nerves, and the continental literature on this subject is dealt with in a fairly exhaustive manner. As regards the rate at which the motor nerves regenerate, it is interesting to note that the authorities quoted seem to have found that the interval between suture of the nerve and return of voluntary power in the muscles which it supplies is more than twice as long for the sciatic as for the musculospiral (radial). According to Stracker, the time required for restoration of motor function varies with the distance of the injury from the spinal cord, which is much greater in
the lower than in the upper limbs. English surgeons, however, have found no such difference, and in some cases (Sargent, Stopford) voluntary contraction of the gastrocnemius returned four or five months after suture of the sciatic nerve at or above the middle of the thigh.

This is one among many controversial statements made by Perret, whose experience of war surgery was naturally not great enough to enable him to criticize the statements of French and German surgeons. The paper is, in fact, chiefly a review of the work of others, and as such is of considerable interest.

J. C. Greenfield.

Psychopathology.

PSYCHOLOGY.


In this paper the way in which the interaction of primitive man and his environment are reflected in the psychic life of the individual and society is discussed.

Totemism is defined as the belief in the existence of a specific magico-religious connection between a human group and a natural species. It seems probable that primitive beliefs are the expression in the language of unconscious symbolism of the unity which connects human life with nature. Primeval man projects the endopsychical knowledge of the existence of a biological connection between man and his environment into the belief in a magical bond between a clan and a natural species.

Reasons are given which make it probable that primitive man regarded the world surrounding him as a second womb, and that his unconscious apperception of space is based on the experiences of antenatal life. The totem clan does not connect the child which belongs to it with the womb from which he was born, nor with the man who gave him life, but with a given locality.

An ambivalent attitude toward the place of birth and also in relation to the grave is noted. The inhibition of the primary desire for the undisturbed bliss of the maternal womb compels man to lead a roaming life; the return of the repressed elements, although the wish-fulfilment has been transferred from the original object to a symbolic substitute (Mother Earth instead of the real mother), changes man from the wanderer to the sedentary husbandman. It seems as if the primeval cave-dweller must have been led by a blind impulse to seek for a place in which he could live again his prenatal life. In the lowest tribes the death-place is avoided for many years; in the higher tribes the desire to remain in contact with the grave incites them to resist the inroads of strangers into their territory.