

of the cerebellum, although 62 per cent. originate from the petrous pyramid, require that uniformly to allow of systematic exploration of the cerebellum and to institute proper drainage, it is necessary in all cases: (1) To obliterate and doubly ligate the descending portion of the lateral sinus. The sinus, no matter how large, may be quickly obliterated and ligated by invulsing the external wall into its cavity. The reason for exploration from in front of the sinus is that here is the least danger of herniation, because of its being in the direction of minimum intracranial pressure from the cerebrospinal system circulation. The cerebrospinal fluid passing through the aqueduct of Sylvius and into the fourth ventricle with lateral communications to the basal cisterna, exerts direct pressure on the cerebellum, forcing it backward and upward. If now incision of the dura is over the lateral lobes of the cerebellum (behind the sinus), herniation of cerebral tissue immediately follows, while an incision in front of the sinus, being over the site of the minimum intracranial pressure, evacuates considerable cerebrospinal fluid but is less likely to be followed by herniation. (2) To expose the dura of the whole cerebellar fossa of the affected side; and, as the affected hemisphere occupies a position beyond the median line, the bone over the unaffected hemisphere should be freely removed. (3) To perform a ventricular puncture in order to relieve the internal hydrocephalus. (4) Then to incise the dura as far forward as possible, the incision extending outward through the obliterated sinus and continued in whichever direction necessary. Because of the variety of situations of cerebellar abscess as found at postmortem, no other surgical manipulation promises to locate the abscess uniformly or allow of its complete evacuation, and the introduction of drainage material within the abscess itself.

Albo, W. L., and Hormaeche, D. G. CEREBELLOPONTINE ANGLE LESIONS.

[*Medicina Ibera*, July 5, 1919. J. A. M. A.]

These authors remark that they could find only one article on this subject credited to a Spanish author among the 300 articles they consulted. They have encountered at the public hospital of Bilbao four cases of lesions pressing on the cerebellopontine tissues. The patients were three men between twenty-nine and thirty-two and one woman of twenty-four. The disturbances may be ascribed to trigeminal neuralgia at first, and it is important to examine with minute care the functions of the fifth, sixth, seventh and eighth nerves. In their cases the evacuation of the pus in the one case of cerebellopontine abscess was followed by a complete cure, but two other patients given operative treatment succumbed to respiratory paralysis. Treatment for syphilis had been pushed in some of the cases but no benefit was apparent. In one of the operative cases a cerebellopontine extension of a tumor in the left half of the cerebellum had been assumed, but the space was

found empty. Hemorrhage from the lateral sinus compelled tamponing and this entailed a destructive process with hemiplegia and the patient died six weeks later; no necropsy.

5. BRAIN. MENINGES.

Herrick, W. W., and Parkhurst, G. M. MENINGOCOCCUS ARTHRITIS.
[*American Journal Medical Sciences*, 1919, CLVIII, No. 4, 473.]

After a brief review of the literature, report is made of twenty-eight cases of meningococcus arthritis occurring in an epidemic of 321 cases of meningococcic infection. In addition to these twenty-eight cases of meningococcic arthritis, there were twelve examples of serum arthritis. Three types of arthritis are described. The first, Type A, an acute polyarthritis involving wrists, knees, elbows, ankles, at times almost all the important joints. Its pathology is apparently hemorrhage into the synovia or periarticular tissues. The pain is severe and other inflammatory symptoms, except swelling, are marked. The duration is short and other metastatic complications of meningococcic infection, such as panophthalmitis, epididymitis, pneumonia are frequent. This early polyarthritis characterizes the severe infections and usually accompanies those cases with marked hemorrhagic rash, and makes the outlook somewhat grave. Of the twelve examples reported, four died—a mortality of $33\frac{1}{3}$ per cent.

The second type of arthritis, Type B, is quite different. It is mono-articular, usually involving the knee. The pathology is a purulent arthritis, the exudate containing demonstrable meningococci in many cases. The swelling is marked, but the other inflammatory symptoms are slight. The marked disproportion between the swelling and the other inflammatory signs is the striking feature of this type of arthritis. It occurs late in the course of the disease, is less often attended by other complications, is moderately prolonged and the prognosis favorable. The mortality in sixteen cases was 12.5 per cent. Aspiration of the exudate and local injection of serum are advisable when the exudate is large. The third type of arthritis, designated Type C, is the ordinary serum arthritis which does not require description. [Author's abstract.]

Stangl, F. H. MENINGITIS AND INFLUENZA. [*Journal A. M. A.*, Oct. 4, 1919.]

The author notices in the reports of the pandemic of influenza references made to toxemia and to the symptoms of shock and meningitis, and quotes a number of authorities who have specially mentioned such conditions. He has, therefore, reviewed again the records utilized by Keeton and Cushman, with the addition of those which have accumulated since their report, 3,400 cases in all, and finds that nearly 1 per cent. of the total showed symptoms suggesting meningitis or cerebral involvement, ranging from slight neck rigidity and bilateral or lateral Kernig reactions to deep delirium and marked stiffness of neck, and in one