SYMPTOMS SIMULATING BRAIN TUMOR DUE TO THE OBLITERATION OF THE LONGITUDINAL, LATERAL AND OCCIPITAL SINUSES. A CLINICAL CASE.*

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The patient, Miss L., was referred to me by Dr. Strickler, of Sleepy Eye, Minn., January 16, 1902. She was 22 years of age, a teacher, father dead, one brother a confirmed epileptic, two others had convulsions in infancy. Aside from the usual diseases of childhood, patient was perfectly well until the present illness. No syphilis, no tuberculosis. Two years before consulting me she was thrown out of a carriage striking upon the top of her head upon frozen ground. The only symptoms were vomiting and severe headache immediately after the fall. She apparently experienced no subsequent ill-effects until July, 1901, when she complained of severe headaches which were regarded as neuralgic. The pain was situated in the right frontal region. These headaches were at first periodic, usually occurring each afternoon although there would occasionally be an interval of as much as three days between the attacks. During the headache the face would be pale, there were dark circles beneath the eyes, and the lids were edematous. Some three weeks after their first appearance the pain became so severe as to confine her to her bed for a period of two weeks; the severe pain was attended by vomiting which lasted for two days. Afterward during her illness vomiting followed when the pain was very acute. She suffered always more severely during the day. While under my observation she was never entirely free from pain although she was at times quite comfortable. When I first saw her, vision was badly impaired and before her death it was almost entirely lost. She could not distinguish between one and three fingers held before the eyes. There was choked disc. The right knee jerk was exaggerated, the left normal; no ankle clonus, superficial reflexes normal; no Babinski; stereognostic sense normal; dynamometer, right hand 19 deg., left 16; no inco-ordination, pupils dilated but reacting to light and accommodation, no sensory or vasomotor disturbances; temperature normal; pulse varying from 68 to 70; no leucocytosis; urine normal; intelligence unimpaired.

On February 15, there was first observed a twitching of the right side of the neck; it was confined to the sterno-cleido-mastoid and platysma myoides muscles. Sometimes the muscles of both sides were simultaneously affected although it was very much more frequent on the right and always more marked; never on the left alone. Accompanying this twitching on the

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right side there would occasionally occur a slight tremor of the chin. February 16, along with a severe headache there was twitching not only of the muscles just mentioned on the right side, but also of the face and eyelid of the same side. This twitching did not seem to have any of the characteristics of cortical epilepsy and its appearance on both sides, although it appeared more frequently on the right side, added materially to the difficulty of making a diagnosis.

Miss L.'s condition became steadily worse and her suffering was so great that an exploratory operation seemed justifiable even though no definite localizing symptoms were present. Dr. Archibald MacLaren of St. Paul operated at my request. The result was negative aside from the fact that for several weeks afterwards she was absolutely free from pain. This, however, again appeared with a fiendish intensity and the second attempt at relief was made during which death occurred.

I am indebted to the courtesy of Dr. Alexander Colvin for the results of the post mortem findings.

There was no intercranial growth and the brain and cerebellum presented a perfectly healthy appearance. The longitudinal and two lateral sinuses were almost completely obliterated. The adhesions between the sinus walls were old and inseparable. Here and there in the course of the longitudinal sinus was found an open space which marked the entrance of a vein; the torcular Herophili was also obliterated. There were in some of the unobliterated areas of the longitudinal sinus adherent shreds of a brownish color which macroscopically had the appearance of blood clots.

Thrombosis of the sinuses is supposed to occur more frequently than any other form of venous thrombosis. This is due to their peculiar construction for, according to Macewen, their great width, the rigidity of their walls, their somewhat triangular form, the trabeculæ that occasionally cross them, the peculiar manner in which they are prevented from being emptied during inspiration, and, in the case of the longitudinal sinus, the direction in which the blood from the cerebral veins enters at an obtuse or right angle against the current, all tend to retard the flow of the blood and thus to favor coagulation.

The usual etiological causes of adhesive thrombosis were not present. There was no phthisis, no Bright's, no cardiac weakness, no exhausting diarrhea, no pneumonia, no carcinomatous marasmus, no influenza, no appendicitis, no disease of the vascular walls, no septic or gangrenous areas, no direct injury of vessels, and no middle ear disturbance. The symptoms were as characteristically negative. There was no epistaxis, no delerium or somnolence, no apparent edema, no distension of the veins of the frontal and parietal regions of the scalp, no convulsions, no temperature, no rapid or thready pulse; in fact the symptoma-

tology of either marasmic or infective thrombosis was entirely wanting, and I am free to confess that I did not suspect its presence.

The only significant symptom was the excessive hemorrhage of venous blood occurring as soon as the incision of the scalp was made.

Under favorable conditions the diagnosis of sinus thrombosis is not an easy matter; in fact "The clinical recognition of plastic or adhesive thrombosis," says Fagge and Pye-Smith, "is rarely possible."

I report this case because I should like to hear what the members of this association have to say in regard to similar experiences of their own.