

Clinical Department.

TWO CASES OF BRAIN ABSCESS.*

BY F. E. KITTREDGE, M.D., NASHUA, N. H.

CASE I. John J. Nine years of age. A full-blooded Micmac Indian.

Entered hospital Aug. 24, 1906. Gave a history of long continued suppuration of right ear and frequent attacks of pain. At date of entrance to hospital there was marked edema and tenderness back of and just above the ear. I did a simple mastoid operation, finding the bone rather dense for a child and but very few cells. The mastoid antrum contained pus and necrotic tissue. In curetting the antrum, broke through the roof and exposed an epidural abscess, evacuating about a teaspoonful of pus. The dura was covered with granulations. Enlarged my opening on all sides until I came to what appeared to be healthy membrane, carrying it forward, somewhat over the ear.

The little fellow's symptoms all subsided, temperature became nearly normal and apparently made a good recovery. He left the hospital in about three weeks' time.

Sept. 22, I was called to his house and found him having at intervals very severe frontal headaches, accompanied by violent attacks of vomiting, slightly subnormal temperature and a pulse of about 60.

After watching him a day or two, I diagnosed brain abscess and urged his folks to return him to hospital for operation. At that time they refused, but a few days later, finding that his condition was growing worse, consented and I moved him there and operated Sept. 27. Temperature at the time of operation was 96.4 and pulse 58 to 60. There was no tenderness upon pressure anywhere on that side of the head.

I reopened my original incision and found the dura, which had been originally covered with unhealthy granulations, in a healthy condition, but somewhat bulging. I laid open the membrane, and went in about one inch with a needle but secured nothing. Then got a longer needle and going in fully one and a half inches or more, drew out a few drops of pus.

I then cut the brain tissue from below up, and evacuated over 1 oz. of pus. Carrying my finger in as far as I could reach, I found a well walled off cavity. Noticing a little pus posterior to my opening, probed and found another pocket. Upon opening this, I should think a half ounce of fluid was found and evacuated. The first pocket went directly in toward the center of the head and slightly upward. The second went almost directly backward, just above the ridge of the sinus. I drained both cavities with gauze, changing it once in twenty-four hours.

At the time of operation enough bone was removed so that I had an opening about two inches in diameter. After a few days he had a pronounced hernia and it was extremely difficult to keep it well drained. This gradually broke down and required considerable curettement. I hardly dare to say how much necrotic tissue was cut and curetted away, but finally secured a large and fairly clean cavity directly up to what appeared to be the wall of the ventricle, and extending backward, about as far as I could carry my forefinger. There was no loss of motion or function and the little fellow was very bright mentally.

He seemed to be doing well until about Oct. 15, when he developed meningeal symptoms which gradually grew worse. Just previous to this, when everything was apparently doing well, he was seen by Dr. Philip Hammond, of Boston, and we thought there was

every prospect of a rapid recovery. The meningeal symptoms continued to grow worse, the head was drawn back, bowels markedly retracted, obstinate constipation, difficult urination and marked pain upon any movement of the body.

These symptoms continued for several days, and finding that my cavity had markedly decreased in size with bulging of its walls, I made a thorough examination with finger. The finger seemed to break into the wall of the lateral ventricle and, upon its withdrawal, was followed by a gush of water mixed with considerable pus. I then carried packing very deep, in same direction from which the water came.

Soon after this his meningeal symptoms seemed to subside, and general condition grew better. After some trouble, a movement of bowels was secured, and he was able to pass urine without difficulty.

Upon Oct. 25, when he seemed fully as well, he was suddenly taken with convulsive movements and these were immediately followed by absolute loss of power over limbs of left side of body. The face was apparently paralyzed upon that side, the mouth being drawn back very markedly to the right, there was grinding of the teeth, the eyes were rolled up in the head and wide open. There were involuntary movements of the bowels and urination, together with absolute unconsciousness. I again carried finger in and opened one of the original sinuses which had become closed. This was followed by a slight discharge of fluid.

He remained in above condition for about forty-eight hours, when there was a slight return of consciousness and he took some nourishment. There seemed to be a slight return of power in arm and leg, manifested by resistance upon moving them, a spastic form of paralysis. This slight improvement lasted only for a short time however, for he soon lapsed into absolute unconsciousness and died the following day.

This patient had a marked septic temperature from the time of operation until death, varying from 99° to 104°. Pulse varied from 70 to 125, averaging 100 to 110.

This was an extremely interesting case to watch, as it did not seem possible to me, with my limited experience, that one could lose so much cerebral tissue and have no motor or mental disturbance. I will not undertake to say how large a cavity there was, but when seen by Dr. Hammond, he estimated that about one third of the hemisphere had disappeared. I do not think that is at all overstated.

From an anatomical point of view, just what part of the different lobes of the brain were involved, I cannot say, except that the first large cavity lay in the temporo-sphenoidal region, a little above the floor, and extended well upward and inward. The smaller cavity extended directly backward toward the occipital region. Later, my small posterior cavity seemed to become obliterated, and I had one large cavity extending directly inward, its upper wall was high up toward the top of the head, and its posterior part, somewhat in the shape of a funnel, extending far back and toward the center.

Previous to the operation Dr. C. H. Nutter attempted an examination of the patient's eyes, but the boy was considerably frightened, and he could not do so satisfactorily.

CASE II. Luther S. Thirty years of age.

Entered the hospital Oct. 9, 1906. Temperature 101°, which quickly advanced to 104°. Had all symptoms of acute mastoiditis, including tenderness over mastoid region and just above left ear.

History of having had trouble with that ear since a boy, with slight discharge at times, also marked pain through that side of head at intervals.

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Had appearance of being a very sick man, and it was thought best to delay interference and watch him for a time. The acute symptoms gradually subsided, temperature became lower and he felt considerably better, all but the tenderness upon pressure, over and back of ear, which remained about the same. His general condition being very much better, Oct. 11, I operated, doing a simple mastoid. The bone being very much sclerosed, found it a very difficult operation. About one third of an inch under the surface, opened up a cell which was filled with very dirty looking and bad smelling pus. A very small sinus connected that cell with the antrum, which also was filled with pus of the same character, and necrotic tissue. Everything was cleaned out as thoroughly as possible.

Patient rallied well, temperature became normal and remained so. He had every appearance of making a rapid recovery. There was just one symptom that caused me any uneasiness, and that was, now and then, pain at top and side of head, but after four or five days, that seemed to subside and he was allowed to sit up and move about. Upon the morning of Oct. 17, he felt so much better he was considering when he should leave the hospital.

Early that afternoon, one of the nurses noticed that he did not answer readily when spoken to, and very shortly after, had a severe convulsion following the cry which usually precedes that of epilepsy. The head was drawn back, mouth turned to right and eyes rolled up in head. The breathing was heavy and hard. One convulsion followed another for the next two or three hours, and were only controlled by frequent inhalations of chloroform. Patient was very drowsy during the remainder of the day. Following convulsion he had three or four attacks of vomiting. Next morning felt better, temperature was 99° and a fraction, pulse about 60. Calomel was given to act upon bowels and after several free evacuations he brightened up and declared he felt about as well as before the attack.

That night, his temperature going to 103° and pulse beating very slowly, I decided upon immediate operation for brain abscess. I trephined about one inch above the zygomatic ridge, directly in line with the mastoid, and had immediate bulging of dura through the lower part of my opening. Needle was entered immediately under the dura, no pus found, then was carried about one-half inch into the brain tissue, where it entered a pocket of pus.

Bone was then cut away with rongeur forceps, down to the original mastoid opening, dura was opened up, and with a knife cut into the brain until the pocket was reached. I found the cavity filled with very foul pus, should think about half an ounce in all. Depth of cavity was possibly one and a half inches from outer surface of brain. I cut away the roof of the mastoid, also roof of the tympanum, securing good drainage. For the first two days I used, as drainage, iodoform gauze packed in strips. Following that used a cigarette drain with plain gauze.

The discharge was very dirty and bad smelling for ten or twelve days, and he seemed a little dull mentally for about the same period. His temperature ranged from 98.5° to 99.5°. Pulse was very slow, most of the time from 50 to 56, until Oct. 29, when it was only 40. The following day, upon removal of dressing, much more pus was found than usual. My forefinger was very carefully carried into the cavity and the tip entered another pocket at the extreme end of and anterior to the original one. His pulse, soon after, began to improve both in character and rapidity of beat, going into the 60's, at times even above 70. This patient left the hospital Nov. 8.

There was marked pulsation of the walls of the

cavity as far in as I could see with a reflected light. An interesting thing to observe upon examination was, that if the patient hawked or coughed ever so slightly, it was immediately followed by a wave of the walls of the cavity, and a quick bulging, due, I suppose, to a rapid hyperemia in the brain.

Oct. 25, Dr. Nutter examined the patient's eyes and gave the following report:

Fundus of right eye normal.

Left eye, a slight neuro-retinitis, involving about one third of the outer border of the optic nerve.

No hemorrhage or change in blood vessels noted.

GENERAL LYMPHO-SARCOMA ACCENTUATED IN THE PHARYNX.*

BY F. P. EMBERTON, M.D., BOSTON.

April 30, 1901. Mr. A. C. W., was sent to me with the following history: He was forty-seven years of age, an American, born in Boston, and a merchant by occupation. His father died at the age of seventy-five from cardiac disease. His mother died at the age of seventy-four from carcinoma. One brother died of phthisis; one sister died of scarlet fever. The patient gave a history of having had typhoid and, at the age of eight, an attack of rheumatic fever, which recurred annually six or eight times.

In 1898, an intestinal hemorrhage was followed by fainting. There was epigastric tenderness and a consulting physician diagnosed duodenal ulcer.

In 1899, a fainting attack was preceded by hematemesis, and following this hemorrhage there first developed difficulty with articulation which grew progressively worse and was accompanied by hoarseness. At this time, examination showed a spare man, poorly nourished, with marked pallor and swollen upper lids, having the general appearance of pernicious anemia. There were no scars on the skin or mucous membranes. Glands were found in the groin and neck, but the spleen and mesenteric glands were not palpable. There was marked cardiac hypertrophy with a systolic murmur at the base. The rhythm, however, was regular and the compensation good. There was slight dyspnea. The uvula was club shaped and the size of one's thumb. A new growth, which seemed to be an extension of the posterior palatine folds, was seen in the lateral walls of the pharynx, with a central mass between. This mass protruded forward at the lower third of the pharynx, was resistant to the finger and of a grayish color.

The larynx was not involved.

The nares were obstructed completely, apparently from collateral edema which gave a tense and water-logged appearance to the mucous membrane. This did not shrink under cocaine sufficiently to afford a view of the pharyngeal vault.

The upper lids were puffy, especially at the outer third, where they formed a curtain over the eyeball. Eversion of the lower lids showed them to be thickly studded with granular elevations. There were nodules in the cheeks and to each side of the frenum of the tongue. The bridge of the nose was broadened. There was no history of pain, headache or sensitiveness of the scalp.

The patient denied syphilis and alcohol.

His weight had dropped from 158 to 130 lb., and later it fell to 126½ lb.

He had had so-called bilious attacks frequently, and such attacks always preceded tarry stools.

His temperature was normal and the pulse 80. There was loss of appetite with fullness of the epigas-

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