

HISTORY OF AN OBSCURE CASE OF INTRACRANIAL INFECTION WITH AUTOPSY FINDINGS.*

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The following case is instructive in showing the occasional extreme penalty for delay in operating in a perfectly simple case of acute mastoiditis. It also illustrates the almost insuperable difficulties of diagnosis which may exist when the conflicting symptoms of one or more complicating lesions are present to obscure the clinical picture.

C. J., a man 40 years of age, first appeared at the Manhattan Eye and Ear Hospital as a clinic patient on October 25th, 1918. He was a powerful and apparently perfectly healthy man, weighing 210.

Aural History: He had suffered from pain, at times severe, in right ear for about a week. The drum membrane was red, infiltrated, bulging. Spontaneous rupture had not occurred. There was pronounced sensitiveness to pressure over antrum; slight tenderness over tip. He was advised to come into the hospital for observation and probable operation, but refused. A free incision in the drum membrane was, therefore, made and he was told to return regularly to the clinic for treatment.

During the week following, his ear seemed to be progressing favorably, i. e., there was only moderate discharge and the tenderness behind the ear was less marked. From this time he ceased coming to the clinic, and I did not see him again until November 28th, when he appeared at my office. His appearance and the local condition on this day were unusual. The right drum membrane was still infiltrated and discharging through a small perforation. There was no appreciable mastoid tenderness. On the right cheek was a prominent swelling extending from the temporal region downward well in front of the ear toward the angle of the jaw. The situation and appearance of this swelling was unlike anything I had previously seen in association with tympanic suppuration, and had I seen the patient then for the first time, I might have regarded the facial swelling as an intercurrent and wholly independent lesion. The patient was

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now thoroughly frightened and made no objection to coming to the hospital for immediate operation.

Operation, November 28th, one month and three days after an operation had first been proposed.

Removal of a thick cortex showed a large tip cell containing pus. Other than this, the most striking feature was the advanced necrosis in the chain of cells occupying a remarkably large zygomatic space. This space extended far forward and perforated the outer plate of the squama in front of the root of the zygoma. When this point was reached, pressure on the cheek caused the escape upward of approximately an ounce of pus. Into this abscess cavity a small opening was made from the cheek, hoping in this way to obviate the necessity of leaving too large an open wound above. This makeshift did not provide adequate drainage, and a week later it was necessary to re-open the wound in the temporal region and establish through and through drainage by means of a rubber tube passing from this situation through an enlarged opening in the cheek.

For a few days from this time, the patient's condition seemed satisfactory, but on December 11th, the temperature suddenly shot up to 103° F., and coincidentally, characteristic signs of facial erysipelas appeared.

During the next two weeks, the patient's condition was in most respects typical; i. e., continuous high temperature, ranging for the most part between 103 and 105, sometimes dipping for a few hours to 101°. The erysipelatous swelling on his face was peculiarly severe, extending gradually and subsiding slowly. He complained a good deal of headache, and also of pains in the back and neck muscles. During the first two weeks of his erysipelas, I was somewhat concerned by a somewhat persistent bradycardia, the pulse going each day to 64, 62 and on two days being recorded as low as 52. Dr. Dwyer, whom I asked to see the patient with me on account of this symptom, said he has observed it in certain other cases of erysipelas eventuating in recovery. This statement largely relieved my anxiety as to a possible intracranial lesion.

From December 24, 1918, when I was taken down with pneumonia, I did not see the patient for many weeks, care of the case being assumed by Dr. Andres.

When I was able to resume my work, I learned that he had been discharged from the hospital on January 9, 1919, apparently in satisfactory condition, but with wound not yet healed.

On February 8th, when I saw him again, he showed in his face the loss in vitality incident to his exhausting illness, and an unsightly and imperfectly healed wound seemed to call peremptorily for a plastic operation.

He was re-admitted to the hospital on February 14th. His urine on this day showed a marked trace of albumen, numerous pus cells and coarse, granular casts. On the operating table he took the anaesthetic so badly, both as to heart action and respiration, that it was necessary to abandon the operation, and the patient was returned to the ward. My intention at the time was to devote the next few days to getting his kidneys into normal condition and then repeat the attempt to operate. But his general condition did not improve. On the day following he complained of sore throat, and had difficulty both in talking and swallowing. One day later, Dr. Farr saw him with me, and opened an abscess behind the right tonsil, evacuating a large amount of pus. During the next few days he was seen by many men, who regarded the abscess in the throat as the chief cause of his septic temperature curve and very poor general condition.

A specimen of blood taken on February 18th showed the presence of streptococci. But the swollen condition of the patient's throat at this time made the administration of an anaesthetic quite out of the question. He died rather suddenly on February 20th.

Autopsy Finding: The post-mortem examination showed a clot, apparently of rather recent formation, extending from near the torcular to a point near the jugular bulb. Free pus was found between the dura and the right lobe of the cerebellum, which also showed well marked cortical changes. These disintegrative changes in the cerebellar cortex had the appearance of being of longer duration than the clot in the sinus.

In mentally reviewing the clinical phenomena of this distressing case, it is clear that whatever was at some stage necessary to avert the fatal termination was not done. But at all times the picture was so obscured by the overlapping symptoms of complicating lesions that it is difficult, even in the retrospect, to see where an exploratory operation would have been justified by the indications present. Was a cerebellar lesion present during the height of the erysipelas? Was the sinus thrombosis a late development, and was the retrotonsillar abscess a metastatic result or simply intercurrent? In the post-operative

period of a suppurative mastoiditis, with severe complicating erysipelas and high temperature, should a well marked and persistent bradycardia be regarded as justifying a surgical exploration of the brain? In general, I should say not, though it is possible that such intervention, which it would have been necessary to undertake during a period of continuous high temperature which the erysipelas seemed amply to explain, might have saved this patient. As adding one more intricacy to the diagnostic difficulties of this case, it may be said in conclusion that when the fever and other symptoms incident to the erysipelas subsided, the pulse rate also returned to normal, ranging between 80 and 86.

Bone and Cartilage Grafting in the Correction of External Deformities of the Nose. L. COHEN, *South. Med. Jour.*, 1919, xii, 151.

Cohen discusses various phases of bone and cartilage grafting in the correction of external deformities of the nose, adding 5 case reports with photographs of the patients before and after operation.

In regard to the question as to whether it is better to use bone or cartilage, the author lays down the sensible proposition that where bone existed formerly bone should be preferred, and where cartilage existed formerly cartilage should be used.

Rib transplant is preferred to tibial transplant because, in the author's experience, the latter has not grown fast to the underlying bone. The method in obtaining and placing the graft is as follows: "After exposing the seventh or eighth rib by the usual incision, a section 3 to $\frac{1}{4}$ in. wide and of the necessary length is taken from the center of the outer table down to the diploic structure with a sharp, narrow chisel, and a strip of cartilage slightly wider and thicker, from the adjoining costal cartilage, care being exercised not to break the connection between the two portions.

Cohen invariably retains a periosteal and perichondrial covering on the side of the transplant which is to come into contact with the skin. The subcutaneous method of placing the graft is preferred, i. e., through incisions within the vestibule of the nose.