SOME CASES OF MAXILLARY SINUS EMPYEMA TREATED INTRA-NASALLY.*

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In a paper read before the American Laryngological, Rhinological and Otological Society in Lexington, Ky., May, 1903, and published in the *Laryngoscope* in October of that year, I gave an exhaustive review of the three classes of operation then in vogue for the treatment of antrum trouble.

The conclusions in that paper were deduced from an experience of some fifty cases I had up to that time operated on. I favored in that article a modified method of the entrance through the inferior meatus, first attributed to Cauldwell. Since then I have seen such excellent results from this operation that I will detail two cases which strike me as possessed of especial interest, on account of their long duration and almost hopeless condition.

Case I. Mrs. T., referred to me by Dr. Frank Markoe in April last, presented the following interesting history:

Patient aged 43, an English lady, has had a suppuration from the left antrum since she was seven years of age.

The discharge came from a pinhole perforation between the first and second bicuspids, but occasioned little pain until she was twenty years old, when the periodical attack became more frequent. A dentist at that time cut into the gum and found an impacted tooth which he removed.

This procedure did not stop the discharge or relieve the pain. Four years ago, an English surgeon operated through the canine fossa and removed the remnants of a dentigerous cyst.

The antrum was packed for one day only and the discharge still continued notwithstanding the after-treatment.

Three months afterwards, a second operation was made through the alveolus and a gold tube inserted. A year afterward, pain, discharge, and facial swelling, having continued, a more radical operation was performed with curettage of the cavity. The wound was again packed for but one day only and a larger gold tube inserted. The patient one year afterwards came to Philadelphia to

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consult a dentist of international reputation, who gave it as his opinion that the tube was the cause of the continued suppuration, and removed it. He then attempted to stop the discharge by injecting tincture of iodine. This only made the pain increase to such an extent that ice bags on the face gave the only relief obtainable.

For the first time an offensive discharge appeared in the nose. The patient was then sent to California where she spent over a year in great misery.

In April last, I operated through the canine fossa, removing all the necrosed bone from the tract of the tube and scraping with great thoroughness the entire antrum. I then packed the cavity for ten days through the canine fossa opening, only long enough to be sure that all the dead bone was removed. Next I resected the greater part of the inferior turbinate body and made a large opening, removing the entire wall below the inferior turbinate attachment. The packing was then continued through this opening for ten more days, my attention meanwhile being given to closing the mouth wound, to prevent a possible reinfection from that source. It took however, three months to accomplish this end, as the superior maxilla was necrosed to a great extent and the operative wound a very extensive one. There has been no pain since the operation and not a drop of pus from the antrum since the mouth-wound healed. I had previously operated on the frontal sinus of the same side, which was in a bad condition of empyema but had only been affected, so far as I could learn from the history, for about a year before the patient came under my observation.

As regards the antrum in this case, I doubt whether a satisfactory result would have been attained without the aid of a very large nasal opening, through which packing with iodoform wool could be carried out.

Case II. Mr. L., aged 36. Referred to me by Dr. Cheatham of Louisville. Left frontal sinus and antrum involved. Frontal sinus operated on by me in October, 1905. The patient was wearing through the alveolus of the third molar tooth a most remarkable drainage tube which I exhibit.

The tube is of gold, but over a quarter of an inch in diameter, one inch long, with a cup made to fit over the end which was emptied of pus as occasion demanded. How this tube ever entered the antrum I can never imagine. It struck the cavity how-

ever near its apex about a half inch above the floor, draining the cavity from a slightly lower level than the natural orifice. The discharge from the antrum was excessive even after the frontal sinus has been operated on. A very small frontal sinus was encountered, but the posterior cells were very much broken down as well as some of the anterior cells and the bulla of the ethmoid.

The outer walls of the meatus, both inferior and middle, were in such a necrosed state, that I removed the walls of both meatus together with the inferior turbinate attachment. Through this large orifice I was enabled to curette very easily the walls of the antrum, but never thought the disease could be overcome, and the alveolar tract healed by this means alone.

The packing with 5% iodoform alternated by simple wool dressing was intermittently continued for some weeks, while the frontal sinus was being obliterated. Finally, the dressings were discontinued and the cavity douched until the antrum was found to be free from pus. This case had been a most distressing one, as the patient had been on the verge of nervous prostration for some time before coming to me for operation.

The facility with which these two most obstinate cases were cured by means of a very free opening in the nasal wall, through which they were packed and douched, together with most gratifying results I have obtained in some twenty cases treated in like manner, that had not previously been operated upon through the mouth, give me some ground for advancing the conclusion at which I have arrived, viz., that four-fifths of all cases of empyema of the antrum may be successfully treated without an anaesthetic by the operation of removing the whole or a portion of the wall of the antrum forming the outer wall of the nasal cavity.

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