A METHOD OF OBLITERATING THE NASO-FRONTAL DUCT, AND CATHETERIZING THE FRONTAL SINUS.

BY HARRIS PEYTON MOSHER, M. D. BOSTON.

The anterior end of the middle turbinate bridges across the upper third of the unciform groove and gains an attachment to the outer side of the nasal cavity on the inner surface of the ascending process of the superior maxilla. The naso-frontal duct, the drainage canal of the frontal sinus, in twenty-five per cent of cases is continuous with the upper part of the unciform groove. More often, or in fifty per cent of the cases, it opens under cover of the anterior end of the middle turbinate in line with the unciform groove and a little above it. In such instances the groove ends blindly or in an anterior ethmoidal cell. In a large proportion of subjects there is a distinct swelling on the inner upper surface of the ascending process of the superior maxilla. The mound made by this swelling is just in front of the anterior end of the middle turbinate and often merges with it. This mound is caused by a cell of the anterior group which has been named from its position the agger nasi cell.

While studying the relations of this cell I found that if its inner wall was broken down with a curette the head of the curette at once entered a sizable cavity. Experiment showed further that if the instrument was carried outward at this level it had a play of a quarter to half of an inch before it reached the wall of the orbit. In this cavity anteriorly the curette brought up against the hard posterior edge of the ascending process of the superior maxilla, while posteriorly it opened up the ethmoidal bulla. All this was of interest but the important observation was made last. A probe bent in the usual manner for catheterizing the frontal sinus was introduced into the cavity opened up by the curette and it was found that it entered the frontal sinus with great ease.

In order to test the worth of this finding, fifty-five half-heads were taken and in those which showed the swelling caused by the agger nasi cell, and such specimens were in the majority, the curette was entered at this point; in the other specimens the curette was made to pierce the anterior end of the attachment of the middle turbinate and carried outward until the resistance of the lacrimal bone was felt. The instrument meets with very little resistance from the partitions between the cells; and so it was carried backward and downward a quarter to half an inch. This turned the

anterior portion of the ethmoidal labyrinth through which the naso-frontal duct runs into one large cavity. In the roof of this lay the opening of the duct. In the fifty-five half-heads a probe passed into the cavity thus formed readily entered the frontal sinus through its duct in all but three or four instances. In the cases in which the probe did not enter the frontal sinus it entered an ethmoidal cell in front of the duct and projecting into the sinus, the type of cell which is called a frontal bulla. In the few cases where this happened, by withdrawing the probe and trying a little further back the naso-frontal duct was easily found.

As far as experimental work on the cadaver goes, this method which has just been outlined is the surest one known to the writer of catheterizing the frontal sinus. I have tried it but twice on the living. In both of the cases it succeeded and in one of them stopped me from doing the modified Killian operation, much to the delight of the patient. At a later time when I have done still more work on the cadaver and have tried the procedure further on the living, I hope to elaborate this preliminary note into a systematic and complete article.

828 Beacon Street.

Two Unusual Cases of Brain Abscess.—Left Hemisphere. E. J. MOURE. *Rev. hebdomadaire de Laryngologie, d'Otologie et de Rhinologie*, Jan. 14, and 21, 1911.

Old suppurations, especially of the cholesteatomatous kind, give rise to cerebral, cerebellar and sinusital complications. It is necessary to distinguish, symptomatologically, between suppurations of the hemispheres. When the left side is affected, there are facial disturbances which may be detected upon thorough examination; if the affection is localized in the left hemisphere, the disturbances are less pronounced.

In both cases the same technic was employed: trepanation; puncture of the abscess; drainage of pus, etc. The method of draining must be modified to meet the requirement of the particular case.

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