A PLEA FOR CONSERVATISM IN THE TREATMENT OF CHRONIC EMPYEMA OF THE MAXILLARY SINUS.*

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There has been so much said and written upon chronic empyema of the maxillary sinus during the past year that it seems like "carrying coals to Newcastle" to try to add anything. Nearly all the recent literature to which I have had access has, with noticeable unanimity agreed upon the intranasal opening and treatment of this disease, and has decried the so-called Caldwell-Luc operation (which is usually accepted as the radical one) save in exceptional cases. To all of this I am in accord, but each writer has, it seems to me, vied with his confrère in destroying as much as possible of the nasal wall of this cavity, and it is remarkable the ingenuity displayed in devising new chisels, saws, drills, etc., for this purpose, each possessing some special advantage in the hands of its inventor, according to his special methods and skill.

Historically, it is interesting to trace the various ways and means of treating this malady since Nathaniel Highmore in 1651 described the sinus. Following William Cowper with his operation that still bears his name, (although he probably was not the first to open the antrum through the socket of a tooth), came Gooch and John Hunter, who independently proposed an opening through the nasal cavity, and a Swedish surgeon with an unpronounceable name who operated after the manner of Cowper, and then made a counter opening into the nose through which he passed a second canula, and so on down to the paper of Ziem in 1886, whose essay was the first to describe the frequent occurrence of this affection without the classical symptoms of pain, swelling and tenderness, and which was the beginning of our present methods. This is so striking when compared with the writings of to-day that Jonathan Wright, from whose book my historical references are mostly taken, says "I am sure any one, reading these accounts of operations on the Antrum of Highmore for suppurative disease, will perceive that all the recent procedures, which have been of late so exhaustively and frequently described, have been long anticipated in surgery."

Our critics have said "we move in a circle," to which our friends

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reply "that it is a spiral, and each revolution finds us on a higher plane."

I am not here to-day with any new methods or appliances, but to cite a few cases treated by opening the antrum through the inferior meatus after the manner proposed by Krause in 1889, and washing the cavity daily with normal salt solution. These canulae are from four to five millimeters in diameter, permitting a large volume of solution to enter, and sufficient pressure to cleanse the cavity, being one of the numerous advantages over treatment through the natural opening or the use of a small canula. That this method is not applicable to cases where polypi or other tumors exist is self evident, but that a number of cases are cured without the unnecessary destruction of the nasal wall, and leaving a permanent unprotected opening into the antrum is, I think, proven. It is too early to claim that this entrance into the cavity never does harm, certainly it does no good.

My technique is to make the puncture under the inferior turbinate, as close to it as possible, from 1.5 to 2 c. m. posterior to its anterior attachment, then washing the cavity thoroughly with the bulb of a Holmes' or Vail's nasal douche attached to the canula, using as stated above, the normal salt solution. I find the bulb much better than a syringe, as the pressure can be controlled and sufficient force exerted to remove all inspissated pus or other debris equally as thoroughly, and with much less damage to the mucous membrane than can be done with a curette; at the same time the natural opening is cleansed of scabs or dried secretion from this vis a tergo, which if Halle is correct, permits the cavity to be cleansed by suction from the inspired air. These washings are continued daily until the solution is free from pus, then every other day for two or three times, and then after one week, and if there is no pus the patient is dismissed as cured. This must be modified to suit the requirements of each case.

Case 1: This patient came to me November 19th, 1905, with a history of having had pus in the right frontal sinus, for which he had been treated for six months through the nose without benefit. Pus flows from right nostril all the time, and reappears in the region of the hiatus semilunaris when wiped away. A probe readily entered the frontal sinus.

The Krause trocar, with canula, was easily introduced through the inferior meatus, the withdrawal of the trocar being followed

by some foul smelling pus. The cavity was thoroughly washed until the salt solution came away clear, again the next day this procedure was repeated, there being a large amount of pus, this was continued every other day for ten days, when, to my surprise, the washings were clear and free from pus. I was informed a few months ago that patient had not had any further trouble and regarded himself as permanently cured.

Case 2: Mrs. B., aged 53 years, came to me August 23rd, 1905, with loss of sense of smell and a constant purulent discharge from the right nostril, which patient stated had continued since an attack of septicaemia fifteen years ago. Both middle turbinates were large and pressing against the septum, right nostril being much smaller than the left. I removed the middle turbinates. On November 18th I removed the right inferior turbinate preliminary to doing a radical operation on the maxillary antrum. One month later the patient, who had been a semi-invalid for years, begged me to try some expedient that would relieve her and not tax her strength like an operation under a general anaesthetic. I made an opening in the nasal wall with the Krause trocar and canula, and washed the cavity which was filled with thick pus, thoroughly. This washing was kept up daily for a long time; then every other day, and finally once a week until May, when I discharged the patient as cured. To-day she remains free from the constant dull headache, her general health is much improved and the secretion in her nostrils normal.

Case 3: Female, aged 35 years, came complaining with headache and a constant dripping in the throat, and a disagreeable odor that nothing seemed to remove. Found both middle turbinates enlarged and pressing against septum, some pus in left nostril in region of middle turbinate. Removed anterior ends of both middle turbinates January 14th, 1907—on April 12th opened left maxillary antrum with the Krause trocar and canula enlarging opening slightly with Myles' back cutting chisel, finding considerable pus of foul odor,—continued washing cavity until April 25th, when washings were free from pus and patient was dismissed as cured. This patient thinks that this trouble began three years before, with an abscess at root of first molar tooth.

Case 4: Mrs. D., aged 50 years, came to me in April of this year with a history of antrum trouble first diagnosed by her dentist several years ago—was complaining of being annoyed by a constant foul odor, worse after stooping. Had just been examined by

her dentist and family physician, who sent her to me for treatment of antrum disease. I found the nostril clean, and practically normal, transillumination showed the face very clear, but left pupil could not be seen. I was much inclined to doubt the correctness of this diagnosis, but decided to make an opening through the inferior meatus, which I did with Myles' chisel, and found foul smelling pus. This cavity was washed daily at first, and then less frequently until the middle of May, when patient was discharged, the washings from cavity being free from pus. Patient returned in August, stating that her dentist claimed there was pus which he had been able to reach through a cavity in the third molar tooth, stating that he was able to introduce a probe through the tooth into the antrum. This, I was unable to do, and as the pupil was perfectly illumined by the usual method, and she had none of her old symptoms, I sent her back to have the decayed tooth extracted, assuring her that would end her trouble. Patient did this and has had no further trouble. ..

Case 5: This patient has had a purulent rhinitis with headache for many years, the septum has a very large perforation, no illumination of pupil or region of maxillary antrum, has more pain and pus in left nostril. Opening through inferior meatus showed much pus in antrum not fetid, patient lives seventy miles away, and has not been treated with any regularity, but is much improved and free from her distressing symptoms of heaviness and pain. No bacteriological examination was made of discharge.

Case 6: This patient has been a chronic sufferer from neuralgia for years, came to the office with an acute exacerbation much worse as are all of her attacks, on the left side. Examination revealed pus in left nostril which flowed freely after cocainizing the middle turbinate and gave relief from pain. Made an opening through the inferior meatus with Myles' chisel, finding pus,—thoroughly washed cavity and patient had a restful night, free from pain. In two weeks patient went to the country having had no pain since first treated, and at the time of departure no pus in the cavity as demonstrated by douching it.

Case 7: Male, aged 38 years, does not know when empyema of maxillary antrum developed or the cause. The cavity was opened through the socket of the second bicuspid tooth by my predecessor who gave up practice over ten years ago. At present there is a disagreeable odor of which the patient is conscious all the time, and his associates frequently. There is a fistula at site of old opening

which he keeps patulous with a tooth-pick or anything convenient; after dilating this canal he is able to force fluid from his mouth into the antrum and has been cleansing it in this manner for years. Opening and washing through inferior meatus brought pus in abundance and fetid odor. Since the first washing the odor has subsided, and very little pus, after three weeks' treatment patient was dismissed.

I think that from these few cases, selected for the reason that they were unquestionably chronic, we are justified in trying this simple procedure at least for a few weeks before destroying the naso-antral wall, that we are safe in concluding that the mucous membrane only needs thorough cleansing in a large number of cases to render it free from disease, and that washing it thoroughly can accomplish this as effectually and with much less destruction than the currette.

Nasal Headache and Neurasthenia. ARTHUR HARTMAN. *Deutsche med. Wchnsch.* May 2, 1907.

After a review of the various causes of headaches of nasal origin, the author calls attention to the fact that characteristic frontal sinus pains may be produced by swelling of the mucous membrane of the infundibulum and absorption of air in the sinus, without actual infection of the sinus itself. Such cases get well rapidly upon appropriate nasal treatment.

YANKAUER.

Paraffin Protheses. K. J. WEDERHAKE. *Deutsche med. Wchnsch.* Oct. 3, 1907.

The author believes that in two of his cases slight emboli formed after the injection of solid cold paraffin. He believes that this may be avoided by the use of a special mixture of paraffin and rubber, which is less brittle than the solid paraffin itself.

YANKAUER.