OPERATIVE PROCEDURE IN CHRONIC PERSISTENT OBSTRUCTION IN THE LACHRYMAL SAC.

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Dacryocystitis, with or without complete stenosis in the nasal outlet of the lachrymal sac, has received a great deal of attention in the hands of ophthalmologists. Up to a few years ago very little was attempted to correct this troublesome condition outside of probing, dilatation and irrigation of the lachrymal apparatus. The average results obtained did not warrant continuation of this very dis-

Fig. 1. Lachrymal Probe through Canaliculus into nose.

agreeable procedure. In late years, a very nice little operation of removing the entire sac, or destroying the same by the use of trichloric-acetic acid, according to the method of Gifford, has received considerable attention, with relatively good results. The tear gland soon accommodates itself to the new environment, and under ordinary conditions the troublesome watering of the eye ceases.

Whether the lessened amount of watering of the eye has any influence of favoring infection of the cornea, might come under consideration.

As long ago as 1910, West published a report of an operation by means of which he was able to effect an opening in the nasal duct without resecting any part of the middle turbinate. A couple of years later he was working out the operation and gave courses in this very ingenious operation in Berlin, where I had occasion to see him do this work. Unfortunately, very little attention was paid

Fig. 2. I. Window resection of mucous membrane with periosteum. II. Flap around window.

to this. Men like Halle, Mosher, Beck, Yankauer and others took it up and modified the operation, but the average run of nose men are not doing the operation, hence my excuse for this report.

The purpose of this operation is to effect a permanent opening between the lower end of the lachrymal sac, at its junction with the nasal duct with the upper part of the nose just in front of the middle turbinate, the opening thus created has a direct outlet and

the opening below the lower turbinate is disregarded. Naturally this procedure has received little attention in the hands of eye men, being purely a nose operation; but not enough nose men are doing this extremely satisfactory but difficult operation, not so difficult that any good nose operator might do this with a little practice, and the results obtained will justify the effort. After having ascertained the chronicity of the tear sac condition, that is to say, palliative means having failed, we proceed in the following manner:

Fig. 3. III. Window chiseled through lateral wall. IV. Reflected flap.

The operation is best performed under local anesthesia. Cotton pledges of a 20 per cent solution of cocain with a little adrenalin added, are placed high up in the nose in front and above the middle turbinate, not forgetting one at the posterior end of the middle turbinate over the nerve supply. A 1 per cent solution of novocain is injected into and around the lachrymal sac from the outside; in this way complete anesthesia is effected.

The first step in the operation consists in passing a lachrymal probe through the puncta into the sac, passing it forward and at an angle of about 45° force this probe through the bony wall into

the nose, so that the probe will emerge at the lowermost part of the sac.

This gives you a good guide and you at once proceed to cut a window of mucous membrane and periosteum, the size of about 8 millimeters around this probe. You can now remove the probe and remove this little flap. This gives you a permanent landmark. The next step is making a flap. Incision is made 8 millimeters above, in front and below this window down to the bone, loosened,

Fig. 4. Final result.

and pushed back out of the way. Now you remove enough bone, corresponding to the size of the lower part of the tear sac; this is best accomplished with a chisel, slightly curved backwards at the end, on account of the corresponding curve of the lateral nasal wall. When this is done your sac is exposed and that portion of the sac exposed to view is removed, in addition the nasal duct is cut in two at its junction with the sac. The bony edges of the window should be made as smooth as possible in order that edges of the tear sac will unite with the edges of the window in the mucous membrane. The original flap is now replaced and union takes place

between the nasal mucous membrane and that of the tear sac; a new outlet is thus created. A loose packing is placed over the flap and left for twenty-four hours. The after-treatment consists in irrigating through the canaliculus for three or four days, which takes care of the crusting in the nose. I wish to call attention to the importance of making the bony opening a little larger than the opening in the tear sac, to prevent recurring stenosis of this outlet. It is remarkable how soon purulent conditions will clear up under this procedure.

In most of our cases we found some involvement in the anterior ethmoid cells which received operative attention at the same time.

COMMUNICATION

The *Editor*, THE LARYNGOSCOPE—In the January number of the THE LARYNGOSCOPE, I note an article by Dr. John Zahorsky, entitled "Does Removal of Adenoid Vegetations prevent Acute Disease of the Middle Ear?" Permit me to answer that question in the affirmative. While the doctor does not insist on the non-removal of the adenoids, he does speak of its contraindications, without pointing them out, and leaves one to infer that many needless adenoidectomies are being done, which may be true.

Some 10 years ago, I had an occasion to discuss the question of adenoidectomy and its beneficial results, and made the remark that considering the slight amount of risk involved in its performance adenoidectomy, is the most beneficial operation known to surgery. After 10 more years of experience, I would like to repeat that statement in italics. In the same issue of this journal (page 56), Dr. Coates of Philadelphia mentions the fact, which is corroborated by practically every clinician in this country, that we are having fewer cases of ear trouble in our clinics since the majority of children are having their tonsils and adenoids removed.

In this article, Dr. Zahorsky reports some 32 cases of acute otitis media in 220 cases covering a period of 3 years, in other words, an average of about 5 cases per 100 per year, which I feel sure is a low average for non-operated cases. In the first place, the doctor wrongly assumes that the adenoid is the only source of acute middle ear infections and hence is disappointed when its removal does not prevent all cases of otitis media. He forgets the faucial tonsils, the infected sinuses, the nasal catarrhs, bronchitis and general lowered resistance from any cause. Even in a number of the cases reported, tonsils were present, as was also bronchitis.

His second premise which is erroneous is to assume that because a child has had an operation for the removal of the adenoids that an efficient operation has been done. My observation has been that adenoidectomy is more frequently poorly performed than any other operation in throat surgery. This does not necessarily apply to the general practitioner or the general surgeon, who parades in this field with impunity, but it often applies, I regret to have to state, to the operation as done by some specialists. If this obtains in clinics where men are supposed to be experienced in operating upon the nose and throat, we would scarcely expect the general practitioner to do an efficient operation hampered by an insufficient anesthesia, incompetent assistance and the want of proper light and the necessary experience.

It would seem that his cases were not thoroughly studied or inadequately reported and the indictment against adenoidectomy was not sustained; and that we *can* depend on adenoid removal as a prophylactic in acute infections of the middle ear; when the operation is *efficiently* done and when the other sources of infection are eliminated.

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