

CHAPTER L.

SALIVARY FISTULÆ.

By a salivary fistule is meant a break in the continuity of structure, either of a salivary gland itself or in its tube of outlet, through which break the secretion is poured over external parts rather than passing into the mouth to fulfil its recrementitial offices.

The causes of salivary fistulæ are various. In children, cancrum oris has frequently so sloughed away portions of the cheek as to produce the most intractable of sinuses, necessitating, indeed, plastic operations for their cure.

Wounds of lacerated character, and burns, are other causes of such fistulæ. Abscesses, osseous and dental, venting through the cheek and involving in their course the Stenonian duct, are origins with which the author has several times met. Epithelial cancer eroding the cheek is a condition encountered. Salivation, once a most common cause, is fortunately now infrequent. Surgical operations exposing the glands or ducts are to be enumerated among causes.

A rare cause of salivary fistula met with by the author on two different occasions, the diagnoses of which have been verified by removal of the organ, consists in an apparent subcutaneous ulceration of several lobules of the gland, the secretion being thus in small quantity continuously discharged and forming hygromata. In one of these instances—detailed, in the section on ranula

FIG. 499.—SALIVARY FISTULE—FROM LIFE.



—an adventitious sinus led the secretion from the sublingual gland to the supra-hyoid bursa, forming a cyst as large as the fist.

The cure of salivary fistule is found in restoring by any capable means the original tube of passage.

Fig. 499 exhibits a fistule upon the cheek, the break being into the duct of Steno near its outlet. On the same diagram, situated just above the angle of the jaw, is shown a second. This represents the condition as connected with the gland proper.

Fistulæ are treated by cauterization and by operation. The first manner has its application particularly in exposure of the substance of a gland, and in most instances invites to a

trial which shall precede operative measures.

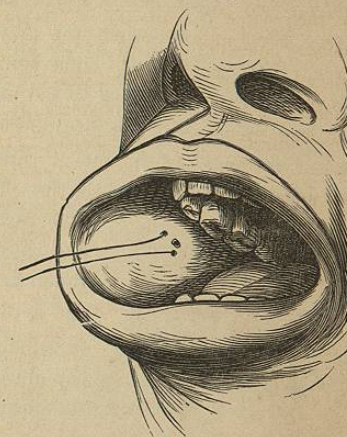
A mode of cauterization, which has the commendation of many successful cases reported, consists in pointing a stick of nitrate of silver, and forcing it

through the track of the sinus down to the gland. When a sinus is straight, and the caustic may thus be made to reach the place of disease in the organ, the practice is to be commended. In the tortuous track, however, such means do not apply; the line may be closed, but, the surface of secretion being unobliterated, the accumulating secretion needs but a very short time to re-establish its channel. Fistulæ of irregular track, connected with the glands, are, with most hope of success, treated by injection. Injections are to be saturated solutions, if deemed necessary, and may be either of the nitrate of silver, of chloride of zinc, or of iodine.

Of the operative means resorted to for the cure of salivary fistulæ quite a variety have been practised. A common manner, and one most easily performed, applicable particularly to breaks in the continuity of the Stenonian duct, consists in taking a strand of well-waxed ligature silk, threaded at each end to straight or curved needles, as preferred. Seeking the bottom of the fistule, the first needle is thrust through the cheek into the vestibule, and brought out at the orifice of the mouth; the second is now passed to the bottom of the fistule precisely as the first, and is also thrust through into the vestibule, but leaving some little tissue between its exit and the line of the first. The two ends being out of the mouth, a single knot is made, drawing it close up to the mucous surface of the cheek, strangulating the contained tissue. The strangulation, however, is not absolutely necessary, many surgeons, indeed, preferring the knot loose, and to have the new passage resultant simply from the presence of the silk. With such a new passage, the original fistule will frequently tend to close. Particularly will this be found the case where it has been so made as to afford easier exit for the fluid than does the fistule.

A second plan of operation is one devised by the late Professor Horner, of the University of Pennsylvania, and is that preferred and practised by many surgeons. Employing a punch, a simple incision is first made from the surface of the cheek down to the line and position of the duct: placing now against the mucous aspect of the part a wooden spatula, the instrument is directed to the bottom of the superficial wound made by the knife, and then pushed through to the spatula, thus, as is seen, cutting out a section of the tissue, and affording a track to the discharge.

FIG. 500.



Agnew's method of treating salivary fistule. The cheek is represented as everted, showing the orifice of the duct of Steno, and the seton deposited between the duct and outside of the cheek, with its two ends brought out at the corner of the mouth. As the threads cut their way out by absorption, the duct is detached from the external opening in the cheek.

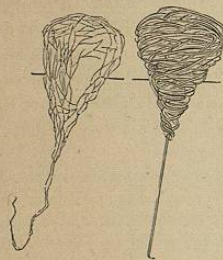
The external incision is next closed, and attempt made to secure immediate union.

As a study in a class of cases oftentimes found quite defying, the following may be offered.

The patient, a gentleman of excellent constitution and in easy circumstances, suffering from a carious dens sapientiæ, had sought relief in its extraction. The dentist, however, had the misfortune to break the tooth, and was unable to remove the fang. From the resulting irritation, conjoined with that residing in the broken and inflamed root, caries of the bone was induced; this, in its turn, inflaming the cheek an abscess formed which opened externally, involving in its passage the duct of Steno, thus producing fistule. The condition of the patient was as follows: the natural outlet of the gland continued patulous; consequently, to the comfort of the case, much of the secretion found its way into the mouth. Through the artificial channel enough of the fluid escaped, however, to keep the cheek constantly bathed with saliva and pus, the orifice being continuously covered with a large, but soft, pasty, and imperfect scab. Of course, so long as the channel passed saliva, it was impossible for nature to close it.

In this case,—which had been under the treatment of different surgeons for over two years,—three weeks, lacking three days, were required for the cure. First, examination was directed to the condition of the underlying parts. The caries of the bone being found cured, the depth and course of the sinus were discovered by the use of an ordinary silver probe. This fistule was enlarged by the introduction, repeated for several days, of a twisted tent of cotton. At the end of this period a slender, straight-bladed listoury was passed directly through the cheek into the mouth. An eyed probe was

FIG. 501. FIG. 502.



next threaded with a cotton tent (Fig. 501), large and thick at the part which was to occupy the inner half of the thickness of the cheek, delicate and as thread-like as it could be made where it was to be lodged in the external track of the fistule. By the aid of the probe this tent was carried through the cheek, and was then fixed in position by a little slip of adhesive plaster, attaching it to the cheek. The cotton, being kept clean and disinfected by daily syringing, was retained in position one week, the swelling of the inner bulky portion having by this time resulted in the formation of quite a channel, with a corresponding diminution in the diameter of the fistule. At this stage it was replaced with a wire seton (Fig. 502), made by taking the most delicate of ligature iron wire, and coiling it upon itself a number of times to half the thickness of the cheek, a single strand continuing the length designed to occupy the line of the fistule. To replace the one with the other it was only necessary to attach them by an intermediate strand of silk: as

one was withdrawn, the other took its place. This wire seton was thus inserted, and was held in place by perforated shots clamped on each extremity. In one week the external, or original, fistule had closed so as to hug the wire, the discharge being entirely into the mouth. The seton was now withdrawn, and on the next day complete closure was found to have resulted. The case was dismissed cured, and has remained so.*

A fistule of the parotid gland proper, failing to close upon cauterization, is to be treated precisely as the case just detailed. In place, however, of the pyramidal coil, a rope of wire is used, three or more strands being twisted together; the track leading to the mouth is to be the shortest that can be selected.

The surgeon, on meeting with a case of uncomplicated fistule, is to make the attempt, before resorting to the more formidable means, to restore a patulous condition of the obstructed duct. This he does by a free use of probes, passing these, of gradually increasing size, from the orifice to termination in the gland. The turning of the canal over the buccinator muscle offers the only complication.

Foreign bodies in the canal are the not infrequent cause of fistule. From the Stenonian duct, of a patient in the Oral Hospital, the author removed a short time back a splint of broom corn measuring over an inch in length. Earthy concretions, when met with, are to be crushed, otherwise removed by an incision made upon them from the mucous surface.

Dribbling.—This condition associates with deficiencies of the oral boundaries. Cure is by operation.† (For studies, see *Plastic Surgery*.)

* The cross line upon both cotton and wire tents marks the proper size for use. The single strand associated with the base of the wire twist has been overlooked by the artist.

† DRIBBLING.—Patients infrequently are seen where constant dribbling, or at least constant desire or necessity to spit, exists. Persons so afflicted are met with who are debarred society, and who are an offence to themselves and to their families. Examination reveals that this dribbling is not generally associated with the salivary glands, but that it is excess of secretion on the part of the mucous bodies. Cathartics given such patients show a glairy mucous discharge suggesting the existence of worms, yet exhibition of anthelmintics fails in supporting the suggestion. Treatment is by tonics directed to the mucous tissue. Pilocarpine hypodermically used is a late application highly lauded: dose gr. 1-60. Any systemic derangement existing is to receive attention.