REDUCING THE TONSILS.¹

BY THOMAS AMORY DE BLOIS, M.D.

THERE are conditions in the throats, of both children and adults, in which it becomes necessary to reduce the size of the tonsils. This does not refer to the enlargement of inflammation, nor to the sometimes sluggish return of tonsils to their normal size after more or less severe attacks of tonsillitis. But whether congenital, the result of disease, or the accompaniment of certain diatheses, the fact still exists that in certain cases the tonsils interfere with the well-being of the individual and relief of some kind is called for.

This interference sometimes manifests itself by lessening normal and quiet respiration, particularly during sleep — less often it is shown in the act of swallowing; besides there is a popular belief, that recurrent attacks of tonsillitis are due to the enlarged condition of the tonsils. But this latter is probably a substitution of cause for effect! Frequent attacks of tonsillitis will in most cases produce enlarged tonsils, rather than be caused by them.

Entire removal of the tonsils, or a complete peeling out of the gland, is an operation which was once practised in Italy, but has now fallen into disuse, and as a substitute for it, a slicing off of a portion was much used. This amputation was done both by the bistoury and scissors and also by the tonsillotome. The latter had various mechanical actions — cutting while sliding back, cutting while being pushed forward, cutting by circular scissors, cutting both tonsils at the same time — to be used according to the fancy of the operator or inventor, and all resulting in the same clipped gland, with a hard, flat, cicatricial surface in the fauces.

The pain of tonsillotomy even under cocaine was considerable; the dread of the operation, where it was understood, was great. Although I have removed tonsils under ether, I think it is generally considered that the operator should have the assistance of the patient in freeing the respiratory tract from blood. Then if you did not use ether, you had the panorama of the screaming child, the hysterical mother, the cracked ice, and the nasty, styptic iron — not dangerous but very unpleasant! The blood frequently oozed; it seldom spurted; and although, as Dr. D. B. Delavan, of New York states, there is not a fatal case of tonsillotomy on record,² yet bleeding to syncope has sometimes occurred.

To obtain the same result, perhaps to crawl out of the cutting operation, many substitutes have been devised. Injections of different kinds into the structure of the tonsils were used, applications of nitrate of silver or London paste (caustic potash) being pushed to the bottom of the crypts of the tonsils. Sometimes considerable benefit was derived from the ulcerative action of these escharotics.

I have used electrolysis in chronic hypertrophy of the tonsils, in which cases I sometimes introduced one and sometimes two electrolytic needles. I certainly got absorption and diminution in size by the action of the galvanic current; but the operation was slow, was painful and had to be frequently repeated, and each successive treatment brought only repeated dread to the patient.³

Following in the footsteps of Dr. Charles R. Knight, of New York,⁴ I have removed tonsils with the cautery loop, either fixed or contractile; but this adds little to the advantages of ordinary tonsillotomy, except the arrest of hæmorrhage and the sealing up of the cut surface.⁵ Dr. Knight's experience with the cold-wire snare ecraseur is, to say the least, not encouraging; even under cocaine the pain was described as being so intense as to form a great obstacle in the mind of the patient (an adult) to submitting to the removal of the other tonsil with the galvanic cautery loop. As regards the effect of the mode of removal on the subsequent cicatrization, it does not seem to me to make very much difference. The burned surface seems to repair as quickly as the cut surface; both leave the same hard cicatrix. Of course there is always the liability of burning the pillars of the fauces and causing some inflammation and œdema from that accident.

Another operation, not original perhaps with my colleague Dr. Leland, but at any rate first used here by him, consists in the transfixion, from one crypt to another, of the tonsil, with a stiff, steel probe. (I have for this operation made use of the ancient and discarded steel hand-plugger of the dentist.) Then the intervening tissue is torn through by a more or less vigorous tug or twist. After half-a-dozen or so of these tracts had been thus divided, the gland is left to suppurate and contract during healing. I have made use of this procedure frequently, particularly, as is often the case at the City Hospital, after the patient has been thoroughly cocaineized, it is discovered that the electricity has decamped for parts unknown. Then this tearing operation is the best thing to do to conciliate the parents, who expect something to be done and who have been sent there with that expectation, possibly, by their "family doctor."

I confess that sometimes, in Dr. Leland's operation, I have wondered whether the whole tonsil and perhaps the pharynx besides, would not come away when I sometimes tugged to break through a particularly thick bridge of tissue. And besides this, I do not think the after-results are quite as beautiful as they should be. There is a very gnawed or worm-eaten look to the surface — suggestive of the shaggy coat of the chorion under powerful microscopic enlargement. The mucous covering of the tonsil has certainly been saved, but there is an untrimmed look about the whole thing, like an unfinished picture.

Lastly, we come to ignipuncture. Fifteen years ago, before the discovery of the local anæsthesia of cocaine, and when the galvano cautery was not much in use, Dr. F. H. Bosworth, of New York, was in the habit of thrusting a silver wire, previously heated over a spirit lamp, through enlarged follicles of the pharynx to bring about scar contraction. This operation, after the general use of the galvano-cautery point, became quite the routine procedure. Exactly when this ignipuncture was used in the reduction of enlarged tonsils is difficult to state. Dodart⁶ reports it as the operation of choice. In a paper by Ouspenski⁷ "the method by galvano puncture is highly praised." Valat,⁸

¹ Note on the Galvano Cautery in the Treatment of Hypertrophied Tonsils. A paper read before the American Laryngological Association (Eleventh Annual Congress).

² Although Werner had a case of hæmorrhage for four days following the cautery-loop operation and the patient was saved by compression of the carotid artery for one hundred and ten days; and also although Delavan has seen diphtheria follow in four cases after operation with the cautery loop.

³ Thèse de Bordenaux, 1886.

⁴ Annales de maladies de l'Oreille du Larynx, etc., July, 1888.

⁵ Gazette des Hôpitaux, No. 132, 1888.

¹ Read before the Boston Society of Medical Observation, May 1, 1893.

² Annual of the Universal Medical Sciences, vol. xiv, p. 13.

³ See Dr. Daly, of Pittsburg: Transactions American Laryngological Association, Washington, 1882.

and Wilhelm Roth⁹ both speak in praise of the operation, particularly for children. "Roth advises the operation, preceded by an application of a twenty-per-cent. solution of cocaine, to be repeated four or five times at intervals of two or three days. He finds this sufficient to reduce the tonsils to their normal size, with scarcely any pain and without the risk of troublesome hæmorrhage, which contrary to his own experience," he says, "is not uncommon, especially in young children."¹⁰

Whether the tonsils of the American present are larger and more difficult than those of the German past, I know not; but certainly I have never obtained the brilliant results nor the total absence of pain depicted as above. At the City Hospital during the past winter, I have operated with the galvano cautery in about thirty cases during six months of continuous service. These cases ranged in age as follows: there was one case of two years of age; one of three years; three of five; one of six; seven of seven years; one of eight; one of ten; three of eleven; one each of twelve, thirteen and fifteen years; two of sixteen; one each of seventeen and nineteen; three of twenty years; two of twenty-one, and one of twenty-three years. After that there was one case of thirty-one, and one of forty, illustrating Sir Morell McKenzie's theory that the tonsils undergo spontaneous atrophy after thirty years of age. I endeavored to do what I could for as many patients as I saw. I do not know whether this number out of, we will say, four hundred new patients (such being about the attendance of the winter months) would represent the proportion of enlarged tonsils; but that is all that the record shows. My usual procedure is as follows: Allow that the patient is a child of five or six years of age, I make an application to the tonsils, with a cotton stick wet with a solution of muriate of cocaine, say of a strength of four or five per cent. I try to get as little of this into the pharynx as possible and endeavor to keep the child's mouth open and tongue quiet until some drying or absorption has taken place. Then they are allowed to expectorate, and of course they get rid of all the cocaine on the tonsils. In five or ten minutes I repeat the operation, and watch the pulse and also the child, for toxic symptoms are possible! If the child be strong, I may make a third application. In the case of an adult it is about the same, except that I use a ten or twenty per cent. solution of cocaine. At the expiration of perhaps fifteen minutes from the time of the first application, while holding the tongue down with a depressor, I push the cautery point down into the tonsil about a quarter of an inch. I purposely try not to strike one of the crypts, the mouths of which I do not care to seal up. The pain, I do not think is very severe, even after you have got through the mucous coat which I believe is the limit of cocaine anæsthesia (when it is not injected). Some slight inflammation follows and some little sloughing from the burned parts. I have occasionally seen a diminution in size (which I estimated at about a quarter) follow at the end of ten days after the first burning. The ignipuncture should be repeated perhaps three times, which will probably give as good results as can be obtained in this way. I will not burden you with a history of my thirty cases, and tell you how much relief A. B. got, and how much C. D. did not. In a treat-

ment of this kind it is largely routine, one case closely resembling another. About half the cases will show some improvement after the first burning, and this will be more apparent in children of from five to fifteen years of age than in any other cases, for the younger ones do not tolerate a proper application either of cocaine or fire, and in the older ones the tonsils do not seem to reduce so easily.

There are certainly one-quarter of the cases in which progress is either so slow or so unsatisfactory that further treatment in this way is abandoned. Then the tonsillotome will make its appearance. I have had four such cases. It appeared to be the only thing to do. I do not wish to convey the impression that galvano-caustic puncture is by any means a perfect method of treating the tonsils. But take it all in all, it is the best that we at present have at our command, and it is certainly far better than the wholesale clipping which formerly was the fashion, when we believed that every enlarged tonsil should be cut.

Reports of Societies.

BOSTON SOCIETY FOR MEDICAL OBSERVATION.

JOHN C. MUNRO, M.D., SECRETARY.

REGULAR Meeting, Monday, May 1, 1893, Dr. J. G. MUMFORD in the chair.

Dr. DeBlois read a paper on

REDUCING THE TONSILS.¹

Dr. G. A. LELAND presented a paper on

RECURRENT TONSILLITIS.²

Dr. FARLOW: The tonsil is an organ liable to have all sorts of irritants about it and in it, and these irritants should be removed if possible. Troubles with the teeth, tongue, mouth, pharynx, naso-pharynx and stomach can cause the tonsil to enlarge. It should be noted whether the tonsil is adherent to the pillars of the fauces and such adhesions should be freed. All secretion should be removed from the follicles and especially from between the tonsil and the anterior pillar and from the sulcus between the upper and lower lobes of the tonsil, the two latter being favorite places for the retention of large masses of irritating secretion.

Where there are a number of enlarged and diseased follicles I have been in the habit of breaking down the walls between the follicles and opening up several follicles into one common opening, in the way that several fistulous tracts might be better drained by laying them open into a common tract. It is also possible to cut out a piece of tonsil which contains several diseased follicles near together.

Dr. DeBlois speaks of cocaine working on the surface of the tonsil only. According to my experience, the tonsil is not a sensitive organ and cocaine used on the mucous membrane causes sufficient anæsthesia to allow very deep cauterizations and incisions without pain.

In children with soft tonsils internal treatment is often of great service and local astringents are of some, but not much, benefit. I have been able to use the cautery in many instances with very good effect. But

⁹ London Lancet, February 16, 1889.

¹⁰ C. H. Knight, in paper as quoted before.

¹ See page 375 of the Journal.

² See page 373 of the Journal.