

## THE DISEASED FAUCIAL TONSIL AND ITS OPERATIVE TREATMENT.\*

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The operative treatment of the faucial tonsil is a subject on which a great deal has been written during recent years, and certainly great advances have been made not only toward a better appreciation of the many complications that may arise as a result of the presence of a diseased faucial tonsil, but especially in the operative treatment of the same.

Whatever the function may be of normal tonsillar tissue, and it is still a disputed question, when the gland becomes hypertrophied and the seat of a chronic inflammation, it not only ceases to exist as a functioning organ and to serve any useful purpose in the economy of the body, but, in its diseased condition, with the crypts and cavities filled with decomposing material, and constantly exposed to the presence of pathogenic organisms, it becomes an incubator for the propagation of these microbes, and for the dissemination of their toxins to other portions of the body.

In considering the indications for the extirpation of the diseased tonsil it is only necessary to remind you of the results which may follow the presence of such a diseased gland, and these may be roughly classed as follows:

1. Mechanical obstruction.
2. Recurring attacks of acute or sub-acute inflammation.
3. Extension of the inflammatory process to adjoining structures, thereby causing an acute or chronic congested condition of the same.
4. Acting as receptacles for foreign matter and pathogenic germs which find lodgment in the crypts and cavities of the diseased tissue.
5. The dissemination of these germs by means of the lymphatics or blood vessels and the infection of neighboring or distant organs of the body.

That form of tonsillar hypertrophy which is sufficiently great to cause a mechanical obstruction in the fauces or which is subject to recurrent attacks of acute or sub-acute inflammation, with its attendant train of symptoms, is generally promptly recognized by the profession as operative and its removal advised, but in that form of diseased tonsil termed the submerged tonsil, where the complications

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that may arise are equally serious and equally numerous, the indication for their thorough removal is sometimes overlooked, especially in those cases where there are no acute symptoms referred directly to the tonsils. It is a matter of common observation to find remnants of a diseased gland, remaining after a former tonsillotomy, giving rise to serious trouble, and many cases of submerged diseased tonsils are the remaining portions of hypertrophied glands which at some former time have been partially removed.

It is not my purpose to present to you a detailed review of the numerous investigations which have been carried out and the many clinical cases cited, which have established the great importance which this diseased gland may have as an etiological factor in both local and general infections. In addition to its influence as a causative factor in diseases of the upper respiratory tract and the many reflex disturbances which it may give rise to, there has been an abundance of clinical evidence published showing the diseased faucial tonsil to be the source of infection in such serious complications as tubercular cervical adenitis, septicaemia, pneumonia, gastritis, septic endocarditis, acute articular rheumatism, et cetera.

I would call your attention to the fact that the actual size of the tonsil is but a minor factor in the indications for its removal; that an old tonsillar stump remaining after a former tonsillotomy, is, if subject to inflammation, capable of giving rise to most annoying and often serious complications; that a submerged tonsil is capable of causing as much trouble as a gland that is enlarged to such an extent that it may cause some mechanical obstruction; that the faucial tonsil is situated at the gate-way to the lymphatic chain; that in a case of chronic inflammation of the gland the diseased tissue is likely to extend to the bottom of the gland, and that it is from the deeper portion that the infection is most likely to be carried into the lymph stream and circulation, and when we consider these facts, it would seem that the indication would be clear to remove the entire gland in order not only to relieve the present trouble, but to prevent any recurrence.

In considering the operative methods of removing the faucial tonsil I desire to mention only those procedures which fulfill the indications present in all cases of a diseased tonsil—namely the extirpation of the gland. Personally the use of the guillotine has become with me an obsolete method of operating, removing, as it does, but a portion of the diseased tissue, it leaves the remainder of the gland to give rise at some future time to further trouble, and is

a procedure which has proven, in my experience, to be extremely unsatisfactory.

The particular method to be employed in the extirpation of the gland will depend upon each individual operator, and will also be governed by the indications present in each individual case, but our aim should be to remove the gland by the simplest, quickest and most satisfactory method and the one which is attended by the least danger and inconvenience to the patient.

A method which I formerly advocated for the removal of that form of diseased tonsil termed the submerged tonsil, is the use of the Robertson' tonsil scissors, and while excellent results may be obtained by the use of these instruments I believe that, in the great majority of cases of all forms of hypertrophy, the entire gland can be removed by other methods more quickly, easily and safely and with less inconvenience to the patient.

The method of removing the gland by cautery dissection, is an operative procedure with which I am not sufficiently familiar to warrant my drawing any positive conclusions, but it has always seemed to me that the time required, to thoroughly accomplish the end to be attained, is unnecessarily long, and that in the separating of the eschars, resulting from the extensive cautery work, it might subject the patient to the dangers of hemorrhage and infection. However, I have no doubt that in the hands of Pynchon who has had so much experience in this method of operating, the results are satisfactory.

In mentioning the use of the snare, scissors, knife and traction forceps, a method which I almost universally employ, it is unnecessary for me to go into the details of the operation, and I desire to mention only those steps, the proper performance of which makes the operation simple and thorough, while a failure to observe them will often be followed by unsatisfactory results.

While this method of operating is usually spoken of as tonsil-ectomy by means of the cold wire snare, the use of this instrument is, especially in the case of embedded tonsils, the least important step of the operation, as the complete removal of the tonsil by means of the snare will depend upon the thoroughness and manner in which all attachments of the gland, to surrounding structures, have been separated before the snare is applied. After drawing the gland forcibly toward the median line by means of the traction forceps, the anterior pillar can be separated by means of the blunt pointed right angled tonsil knife or the right angled tonsil scissors. I prefer the

former as the blade can usually be easily passed well down to the base of the gland and thorough separation made upwards and downwards with less danger of wounding the pillars and causing hemorrhage. After separating the posterior pillar in a similar manner, a point of importance is the thorough separation of the upper portion of the gland at the apex of the tonsillar fossa, and for this purpose I make use of a scissors curved on the flat, and so thoroughly divide all attachments in the supra tonsillar space that the upper part of the gland can be readily turned downwards by traction with the forceps. The bottom of the gland can then be separated in a similar manner by means of the tonsil scissors. After the gland has been encircled with the loop of the snare, the blades of the traction forceps should be separated widely enough to grasp firmly both the upper and lower portions of the tonsil, so that when traction is made both the upper and lower portions of the gland will be drawn well out of the fossa, allowing the wire to slip easily down around the remaining part of the tonsil when it can be readily drawn through and the gland removed.

I usually use a No. 7 piano wire, and without the use of the grooved ring which frequently accompanies a tonsil snare. Such a wire possessing sufficient resiliency to enable one to force it thoroughly down around the base of the gland.

When operating under general anaesthesia, if the operator has difficulty in using the knife or scissors in the left hand, it will be found convenient in removing the left tonsil to stand at the patient's left side in order that he may have the knife, scissors and snare in his right hand, and in removing the right gland to be seated at the head of the table, and thus have the free use of the right hand for the same instruments.

The reaction following this method of operating is somewhat greater than that following the use of the guillotine, the amount of reaction and discomfort varying considerably in different individuals, and is considerably greater in adults than in children.

In regard to the after treatment it is of great importance that the throat should be kept cleansed as thoroughly as possible, by means of sprays, gargles and mouth wash, during the healing process, and that the patient should be kept under observation and treatment for a sufficient period of time to insure thorough and complete healing of the wound. If this is not done the patient will be subjected to the dangers of a secondary hemorrhage. I have had two such cases occur ten days after the operation, from the erosion of a small blood

vessel, and while the bleeding was not alarming, it was very annoying and somewhat terrifying to the patient and family.

Another point of importance in regard to the after treatment, more especially in the case of children, where the operation includes the removal of adenoids, is the advisability of prescribing some form of an iron tonic, as there is a considerable loss of blood accompanying an adenectomy, and moreover, many of these little patients are already anaemic and poorly nourished as a result of the impaired oxygenation of the blood due to defective breathing. I have, in a number of cases, had a blood count made immediately before operating, a second count taken a few hours after the operation, and a third one after a period of four or six weeks, and a comparison of such counts will show a decrease of reds and a leucocytosis on the second count, followed by a rapid increase of reds during the following few weeks.

The choice of an anaesthetic in these cases is a subject of great importance. In the extirpation of a faucial tonsil in an adult, I generally employ local anaesthesia, making thorough applications of a ten per cent. solution of cocain and a 1 to 1000 solution of adrenalin, and I usually precede the use of the cocain by the administration of gr. 1/20 of strychn. sulph.

In the case of children, where it is necessary or advisable to use general anaesthesia, our first consideration should be for the welfare of the patient, and that form of anaesthesia should be chosen, which experience has proven to be the safest, provided it meets the requirements of the case, and it should always be born in mind that there is an already existing interference with respiration from the presence of an hypertrophied pharyngeal or faucial tonsil with its encroachment upon the lumen of the air passages.

The use of the more transient anaesthetics such as nitrous oxide and ethyl bromide produce an anaesthesia of too short a duration to be satisfactory in this method of operating, and our choice will be limited to the use of chloroform or ether or both.

In the absence of contra indications such as bronchitis, nephritis, etc., and with the proper care of the patient and avoidance of exposure, after the operation, I believe it is the consensus of opinion among operators that the margin of safety is considerably greater in the administration of ether than in the use of chloroform, and this is especially true in this class of cases, where there is an interference with respiration from the presence of a naso-pharyngeal obstruction.

A second point, in favor of ether, is the possibility of obtaining a longer period of anaesthesia, if the anaesthetic has been pushed to deep narcosis, a point of considerable importance in operations on the upper air passages, where the anaesthetist and the surgeon occupy the same field of operation, and the former is compelled to suspend the administration of his anaesthetic in order not to interfere with the work of the latter.

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**Report of Cases Simulating Grave Mastoiditis**—FRED. BAKER  
(San Diego, Cal.) *South. Calif. Pract.*, Los Angeles, Feb. 1905.

The three cases cited by Baker convey needed information to overzealous mastoid operators. The first was in a male of 19, who, ten days after an attack of "grippe" with chills and high fever, on attempting work had a severe attack of ear ache with rupture of the right drum head.

When seen, there was a large opening in the lower anterior portion of the drum from which came a very free discharge; temperature 101.2° F. There was some dizziness, and very severe pain in the ear and mastoid. The mastoid region was swollen, somewhat boggy to the touch, and both pressure and percussion increased the pain. At midnight there was a severe chill followed by high fever which had subsided gradually.

A large number of "grip" cases without complication of the mastoid, when purulent otitis existed, had made Baker willing to take some chances. He therefore began palliative treatment. The following night there was a chill like that of ague, and temperature of 105.5; chill and temperature quickly controlled. A blood count was now made, and showed a trifle less than 9,000 white corpuscles to cu. m.m., and it was concluded that there was no streptococcic infection to account for the chills, and that the count gave rather positive indications against serious mastoid invasion. Two days after first seeing patient, the case turned out to be a typical case of typhoid fever.

Another case was one of walking typhoid in a boy of seven with mastoid swelling and tenderness; while the third case followed upon the latter part of an attack of chicken-pox in a girl of 13; there was fever and with pain and tenderness of the mastoid. An operation was favored by two aurists, but the case recovered with perfect hearing.

Baker closes by stating that: "These cases have been reported to show that the last word has not been said about suppurative otitis by those aural surgeons who maintain that all patients must be operated upon where mastoid pain of severe character persists over thirty-six hours, if accompanied by high temperature, and especially if there are chills of apparent septic character."

EATON.