TONSILLECTOMY IN THE TUBERCULOUS.*

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Not infrequently one reads a statement emphasizing the importance of correcting all diseased conditions of the nose and throat in sufferers from pulmonary tuberculosis, with the object in view of influencing favorably the general course of the chest trouble.

Thus, Anderson¹ in an article on "The Importance of Correcting Pathological Conditions of the Nose and Throat in Patients who have Incipient Tuberculosis," after speaking of the three cardinal principles in the treatment of tuberculosis, viz: food, fresh air, and rest, says: "A carefully regulated diet may be prescribed with digestants and stomachics to encourage the stomach to perform its functions; but if the tonsils are hypertrophied, with septic accumulations in their crypts, or if there is muco-pus in the nose or sinuses, we know that the digestion will be impaired." Again, "There is such a close relation between the upper respiratory tract and the lungs, that any abnormal condition of the nose and throat should receive careful attention." "Diseased tonsils are a source of great danger to tubercular persons." Many other writers have made similar observations. I remember distinctly during my early days in this community, hearing our own Dr. Solly call attention to this point in a meeting of the county society.

I have been unable to find, in a rather superficial examination of nose and throat literature extending over the past ten years, any reports giving definite data on what the effect of removing tonsils has on pulmonary tuberculosis. Anderson himself, in closing his article, says that he could cite cases illustrating these principles but the reports would not be conclusive as other measures directed against tuberculosis have been used.

In the study of a few cases from my own practice I have had great difficulty in estimating what the direct results on the tubercular lesion has been for the following reasons:

First: Some cases were well on toward recovery when the tonsil operation was done and their improvement continued afterwards. It would be manifestly unfair to say that this improvement would

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not have continued had the tonsils not been removed or even perhaps to say, that it progressed the faster because of the operation. On the whole, however, the reports from the attending physicians who referred the cases to me have been distinctly favorable and although couched in general terms and being for the most part only "impressions" rather than provable facts, are, on that account none the less valuable.

Second: In many cases the lack of available information as to the exact condition of the patient before operation and the absence of accurate observation afterwards.

Third: The impossibility of judging exactly what effect the operation has had on the tubercular process.

I have collected notes of thirty-four cases from my records. Of this number there are no notes procurable after the operation in twelve as the patients disappeared from observation. Of the remaining twenty-two, the results are distinctly good in seventeen, poor in three and of no effect in one. In one of the cases tuberculosis was not recognized at the time of operation but was demonstrated soon afterwards; in five there was a laryngeal tuberculosis, in one tuberculosis of the pharynx and in one middle ear tuberculosis. Ether was the anesthetic in five of the cases, local anesthesia being used in the others. It is significant to note that two of the five cases, who had ether, did badly afterwards (cases 8 and 14), although in one (case 14), tuberculosis was not known to be present at the time of operation. The other three did equally as well as the locally anesthetized ones. Three of the cases were in persons with long standing lung tuberculosis which had become quiescent and in half of all the cases the patients' lung condition was quiescent. Only two of the cases were classed as incipient, the remainder being mostly in the second stage and a few in the third stage.

The following is a brief synopsis of some of the cases:

Case 1. Mrs. L., came to Colorado in July, 1913, with a third break-down from tuberculosis and was seriously ill. She had a high temperature for months. She gave a history of rheumatism, pyorrhea and tonsillitis. The tonsils were removed under local anesthesia in August, 1914. The patient has remained well since and has been living in the East for several years. Operation was undertaken after the pulmonary disease became quiescent. I do not attribute this patient's recovery to her operation. It may have contributed to her immunity since.
Case 2. Miss M., active, has had tuberculosis for several years; second stage case. Occasionally she has temperature and slight hemorrhages; frequent attacks of pharyngitis, tracheitis and an annoying cough; rheumatism in knees. Tonsillectomy under ether in September, 1916. She has been much improved since and her physician reports that her chest is in better shape than ever before. No more attacks of tracheitis and pharyngitis.

Case 3. Mr. H., in the second stage of tuberculosis, has been here over two years; frequent attacks of tonsillitis accompanied by exacerbations of the lung condition; tonsillotomy one year ago. He has tonsil stumps containing caseous crypts, enlarged cervical glands and small amount of adenoid tissue. Operation, October 17, 1906. His physician reports that after the operation he has had no more sore throats and exacerbations of the pulmonary trouble. The doctor thinks he did much better from that time on.

Case 4. Dr. S., active, has had pulmonary tuberculosis for years; has had for weeks a slight temperature as high as 100.4°; pyorrhea; cheesy plugs in the tonsils. Operation under local anesthesia in April, 1915. Temperature was 101° for a few days afterwards but soon came down to normal. His physician reports he did much better following operation and better still following the removal of two teeth with apical abscesses four months later. Soon went to work and has continued working since.

Case 5. Mr. P. is a second stage patient and was not doing very well; frequent elevations of temperature, slight hemorrhages and hoarseness. He has very large tonsils full of cheesy matter. Operation under local anesthesia, November, 1913. He has had fewer exacerbations of temperature and hemorrhages and soon recovered. Has been well since. This cannot be regarded as a quiescent case though a time of apyrexia was chosen for operation.

Case 6. Mr. B., active, second stage case, not doing well and had an unfavorable prognosis from his physician. A great deal of tickling in his throat; frequent sore throats. His large buried cryptic tonsils were removed in January, 1914, under local anesthesia. He has now been hard at work for two years. His cough was diminished two-thirds after operation. Doing well.

Case 7. Mr. R., has had tuberculosis of lungs for several years. He is an arrested case and has been at work for two years. Frequent coughs, tonsillitis and bronchitis; coughing a great deal. Temperature 99°. Operation, under local anesthesia, in January, 1917. No cough or temperature since operation and practically no post-operative soreness.
Case 8. Miss A. Tuberculosis for six years. Has done only moderately well. Diseased tonsils and enlarged cervical glands. Very nervous about operation, which was done under ether in May, 1916. She took the anesthetic badly and was very cyanotic. Patient reported in July that she had cough and temperature for five weeks following operation, but is feeling well now. Spent several weeks in New England during the past winter where she had an attack of influenza, returning in February with renewed activity in lungs.

There is no doubt that the lung condition was lighted up by the effect of the ether in this case although this possibility was considered by her family physician and myself and it was decided for other reasons to take the risk. She apparently recovered from that flare-up and the present condition is, no doubt, directly due to the unfavorable environment and her activity while she was east.

Case 9. Mr. S. has been tubercular for one year; hoarseness, throat sore. Has large buried cheesy tonsils which were removed under local anesthesia in February, 1914. One month later he complained that his throat was sore. He had an inflamed spot in both tonsil fossae which aroused the suspicion of a tubercular infection at this point. This got somewhat better and the diagnosis was never confirmed as the patient left here and I have no report from him since. His larynx showed distinct signs of tuberculosis in March.

Case 10. Dr. C. Active tuberculosis of the lungs for one year and of the larynx for eight months. Afternoon temperature 99°; cough, expectoration, lungs moist. Large cryptic cheesy tonsils removed with local anesthesia in June, 1912. One month later the cough had decreased and the temperature ceased. In September he went to work and has been at work since. No active signs for years. Voice almost normal. This man was evidently greatly helped by the operation.

Case 11. Mr. B., first seen in February, 1916. Second stage case. He has had lung tuberculosis and hoarseness for five months. His larynx and one ear are tubercular. Under treatment the larynx and ear improved considerablsy as did his lungs, although he had wide-spread trouble. His large and diseased tonsils were removed in an effort to affect favorably his tubercular condition. Operation on November 7, 1916, under local anesthesia. A good deal of troublesome hemorrhage complicated the operation and the pillars on both sides were sutured over gauze. Notwithstanding this, a secondary hemorrhage occurred a few hours later on the right
side and more packing and sutures were necessary. A large hematoma in the soft palate resulted and altogether the patient had a very trying time. For two weeks, prior to operation, his temperature had varied between 98° and 99°. Following the operation it rose to 100° for one day, was 99° the next day and did not go above normal afterwards. The patient went to work in January and is generally doing well, although his laryngeal condition was worse for a time. This is now better but is still being treated. The ear is dry with a small perforation. This patient went to work against advice as his condition is not such as to warrant it, yet he is really holding his own very well. He also developed a suspicious-looking spot in one tonsil fossa a few weeks after operation which has now healed completely.

Case 12. Mr. M.; third stage case. Has tuberculosis of the posterior pharyngeal wall and a small tubercular ulcer on the left tonsil. Against my judgment and advice the left tonsil was enucleated under cocaine anesthesia and tuberculosis of the wound promptly developed. Patient was desperately ill and died two or three months later.

Case 13. Mr. C. has had fibroid phthisis for three or four years. Second stage case. No temperature for three months; very little cough or expectoration but is annoyed by a constant “clearing” of his throat. Small buried tonsils were removed in September, 1914, under local anesthesia. The most annoying “clearing” was not influenced by the operation nor by any other measures, including treatment through the bronchoscope and by intratracheal injections. His general condition is good and he has been at work on a ranch for two years.

Case 14. Child; three years old. Seen first with acute tonsilitis. Cervical glands not enlarged at the time but were palpable two months later, at which time the operation was performed under ether anesthesia. Patient did not pick up after the operation and six months later the attending physician reported that it was running a temperature of 99° to 101°, the reaction to tuberculin was positive and there was probably tuberculosis of mesenteric or bronchial glands. Subsequent history unknown.

In operating upon these tubercular cases, certain precautions should be observed. A time should be chosen for operation when the general condition is favorable and the lungs are relatively, at least, quiescent. Ether should be avoided whenever possible. In certain nervous cases it seems imperative to give a general
anesthetic because it is a question whether the psychic shock is not greater in these with local anesthesia, especially if troublesome hemorrhage is to be expected. Although it cannot be mathematically proven that the lung condition is directly influenced, the universal opinion of all who have observed these cases is that they get along much better afterwards. There are many cases who reach a certain point in their improvement from the lung lesion and get no further and who, after a needed tonsillectomy, find their general resistance so increased that they proceed more rapidly to a full arrest of the disease. Laryngeal tuberculosis per se is certainly no contra-indication to operation and is many times much helped by a tonsil enucleation. In the presence of actively spreading ulceration of the larynx, especially when involving the epiglottis, one would avoid operation. But with a healing larynx or one with only slight involvement, operation may be undertaken if other conditions are favorable. The presence of tubercle bacilli in the sputum is no contra-indication, but in the presence of copious expectoration, I should feel, there is more danger of wound infection.

The post-operative care of the wound is especially important. It has been my custom to apply tincture of iodine once or twice daily until cicatrization is complete and in one case the whole surface was painted with trichloracetic acid immediately after the operation. I once saw a galvano-cautery used in the same way.

After reviewing my experience and that of my colleagues in this region, I feel justified in the belief that tonsillectomy in these cases, when indicated (and the indications for operation are practically the same as for the non-tubercular cases), is practically devoid of danger, either from local infection or from lighting up a slumbering process in the lungs, provided one uses ordinary judgment in the selection of cases. Of course, no one would think of operating in the presence of marked activity in the lungs as manifested by fever, rapid pulse, sweats and declining weight and strength. But a time can be chosen when these symptoms and signs are in abeyance and then good results may be expected.

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