

TUBERCULOSIS OF THE LARYNX.*

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The pathology of laryngeal tuberculosis, the symptoms, the course, the prognosis and therapy depend mainly on the general condition of the patient, particularly on the condition of his lungs. It is, however, questionable whether we are justified in considering it, under all circumstances, as a secondary disease to tuberculosis of the lungs; in other words, there are few, if any, cases known where the lungs were free from tuberculosis and remained so. In 1902 and 1903 I observed such a patient, whose larynx suffered from microscopically diagnosed tuberculosis, yet he had no fever, no dullness or râles over his lungs, no bacilli in his sputum; in other words, there was at the time no affection of the lungs that could be diagnosticated. Yet in 1905 he died of a very rapidly progressing tuberculosis of the lungs. His larynx remained cured to the end.

The only case of apparently primary tuberculosis of the larynx observed by the writer took such a course later on as to make it highly probable that an undiagnosed and undiagnosable focus of the disease existed at the time of observation.

In the large number of cases with fair general condition and slowly progressing or even stationary tubercular disease of the lungs, the symptoms of hoarseness and pain in swallowing are well known. Not so well known is the changeability of these symptoms, so that for days and weeks they seem to be entirely absent, and the patient and the doctor think the disease cured, until an examination reveals the great extent and destruction caused by the disease. This is a warning that

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the larynx of tubercular patients ought to be examined much oftener. Early discovered lesions give a better prognosis and better results from treatment. Furthermore, it is a fact that the elimination of a focus in the larynx has a good influence on the course of the lung trouble.

The diagnosis is usually not difficult. The subjective symptoms are pronounced. The objective examination by direct and indirect laryngoscopy reveals swellings or ulcerations, which may be found extending over the whole of the larynx, or, more frequently, over certain parts, the rear margin of the entrance of the larynx, or over the vocal cords, the epiglottis, or the space below the glottis. The sequence with which the localities of predilection are named is of importance. In the first place, the rear margin of the entrance of the larynx is given. Infiltrations of this part were often found when all the other parts of the larynx were free. Swellings of this part were also found combined with affections of other parts; for example, of the vocal cords. Whenever, in such a case, the question of differential diagnosis from syphilis or carcinoma comes up, the infiltration of the posterior part of the margin of the entrance of the larynx speaks in favor of laryngeal tuberculosis. This point is so much more valuable, as it will be found to hold good, especially in early cases, when the differential diagnosis is often at the same time difficult and important. Of course, the other means of diagnosis, von Pirquet's test, Wassermann's test, microscopic examination, must not be neglected.

To illustrate some unusual features, the following history is given:

Mr. Z., fifty-eight years old, has lost several brothers and sisters from consumption. He is not very tall or strong. He has been hoarse since one year ago; absolutely aphonic for five months, and has complained during the last two weeks of difficulty in breathing. Otherwise, he feels perfectly well, and has not lost a day in years from his business. Examination of the larynx was easily made, and showed the cavity of the larynx concentrically narrowed to the size of a thin pencil by a hard swelling of the whole wall. The vocal cords could not be seen. The walls were irregular and of the same color as the pharynx—pale pink. The microscopic examination of a piece of the wall showed the presence of an inflam-

matory new formation. This finding was unsatisfactory. A larger excision with a Landgraf double curette was pronounced typical carcinoma by another pathologist. At the same time the condition of the patient improved under potassium iodid. Another specimen finally was pronounced tuberculosis, with scant but unmistakable tubercles. The wounds left by the different excisions healed promptly and completely. Therefore, the curette was used freely on both sides, and on the rear wall, until the normal width of the larynx was reached. The vocal cords were normal as to color and configuration. The left one was slightly paralyzed, but the voice at once became clearer. The patient made a quick recovery and was well for several years; then he developed tuberculosis of the lungs. The voice remained clear up to a week before death, according to information from his daughter.

The first point of interest to me was the finding of a large fibrous tubercular tumor of the larynx, whose walls were so thickened by a hard swelling as to have an opening of only the size of a small pencil, causing dyspnea. The patient's larynx remained well after the excision up to within a few days before his death.

The second point concerns the prognosis and the therapy. The prognosis of tubercular laryngitis depends entirely upon the condition of the lungs. It is good if the disease of the lungs either improves or at least does not progress; for example, a teacher whom I saw first in 1898—absolutely aphonic, with swellings of her arytenoid cartilages, and red, swollen, partly paralyzed vocal cords; has been teaching ever since—about three months after I first saw her. Other similar cases might be mentioned.

In the therapy, the first requirement is absolute rest of the larynx. The patient is not allowed to talk a word. Great improvement and even cures have been noted from this practice alone. Precautions ought to be taken that the psychic effect, the depression, does not become too great. In special sanatoria this can be done more easily and more effectively. Unfortunately, few of them are available to the middle and lower classes. Germany has found ways to overcome this difficulty. The results are correspondingly better. Local applications of lactic acid, thirty, fifty and seventy-five per cent, are often of benefit, if the patient is willing to submit

to the pain and discomfort they involve. At the same time the pharyngitis which is always present must not be overlooked.

Different forms of the galvanocautery, the simple stab cautery or the multiple cautery, also give very good results. In extensive applications of this agent the reaction is often quite considerable. A certain reluctance to use the knife and the curette was felt, dating undoubtedly from the time before the cocain and adrenalin. In 1913 Arnoldson¹ published a strong appeal in favor of the simple surgical methods of dealing with the different swellings. My experience in the above described case, and in others, spoke certainly in favor of this advice. The advantages are numerous. First, there is comparatively little hemorrhage, and the reaction, which is often quite serious after extensive cautery, is entirely absent. The young lady whom you saw tonight came to me absolutely aphonic. The epiglottis was at least one centimeter in thickness. I amputated the epiglottis two weeks ago—on a Saturday. On the Monday after that operation she went to work again. Her voice began to improve at once, though the larynx is not quite well.

Whether direct or indirect laryngoscopy is preferable is a matter of taste. Direct laryngoscopy gives better access to the diseased parts; indirect is easier on the patient, which advantage must not be underestimated in patients who are so easily affected by psychic influences.

An important point is finally the overcoming of the difficulty in swallowing, which often occurs in the later stages of the disease. The question is of great importance, as many patients do not eat because swallowing hurts them so much that they avoid it at all costs. The consequence is that they lose weight and ground very fast. The simplest means by which to overcome that is by the use of the narcotics and local anesthetics—morphin, cocain, orthoform, anesthesin, and nerve blocking. Morphin, cocain, orthoform and anesthesin have certainly all some influence on the heart, which is absent in nerve blocking. Nerve blocking consists in the injection of alcohol in the vicinity of the superior laryngeal nerve. Since the procedure is very simple, it must be recommended in preference to the narcotics and local anesthetics. But under all circumstances we must not forget that all this will not

have any curative effect. If we do not at the same time apply any local surgical measures, we simply keep busy, doing nothing for our patient.

External surgical measures, tracheotomy and laryngofissure, have both been used by the writer in a few cases. They invariably leave the patient in a much worse condition than he was before, either generally or locally, often both. Even laryngectomy was advised by some authors. Whether the life of these patients is prolonged thereby, I do not know; surely their sufferings are. Whether radium, X-ray and sun rays will accomplish all that is claimed is questionable; we are inclined to expect more of the things we do not know anything about. The well known surgical procedures have the advantage that we know what we are doing. It is true, they require experience in the diagnosis, and skill in their performance, but those are qualities that we can and have to acquire.

REFERENCE.

1. Arnoldson: *Arch. f. Laryn.*, xxvii, 1913.