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STRICTURE OF THE LARYNX:

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presented by the author.



Compliments of
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STRICTURE OF THE LARYNX;

WITH EXTENSIVE CICATRIZATION, FROM ULCERATIVE TUBERCULOSIS.

By J. SOLIS-COHEN, M.D.,
OF PHILADELPHIA.



MR. X., æt. forty-five, of spare habit, serofulous complexion, and nervo-sanguine temperament, brought up as a farmer, but for more than twenty years a machinist in charge of one of the most extensive foundries in the United States, applied to me in September, 1887, for treatment of difficulty in breathing, difficulty in swallowing, painful glutition, and weakness of voice.

As received from the patient, his clinical history was briefly as follows: Without any recollection of previous illnesses, during the winter of 1871-2 he acquired a very sore throat, more severe on the left side, which hurt him extremely in swallowing. A swelling developed on the left side of the neck just below the ear to the size of an ordinary peach kernel, and softened into an abscess which was opened, and which remained open for about six weeks. As this swelling had increased in the neck the sore throat had improved, so that it had gotten well before the abscess was opened. The voice had not been in any way affected. In the winter of 1883-4 he had an attack of bronchitis following an acute coryza, but recovered thoroughly. In February, 1886, while perfectly well, exposure to cold brought on acute inflammation of the throat with dysphonia and dysphagia. This subsided under constitutional and topical medication in about six weeks, the voice becoming entirely normal.

One year later, February, 1887, after exposure to cold, a much severer attack of sore throat ensued, the dysphagia being much greater than before. By May the inflammation had subsided very much, and the voice had almost resumed its natural character. In the middle of May the soreness began to increase and the voice failed. This condition, with some improvement in strength of voice, but never complete freedom from huskiness, prevailed until the date of application to me. On close questioning, I learned that the patient had never been able as a boy to take part in games that required running. His wife assured me that, though strong in every other way, he had been a little short of breath on exertion, and had a weak voice ever since she had known him; that in December, 1877, he had had a severe sore throat for two weeks with chokings at each meal, after recovery from which he had no trouble until February, 1886; that he began to breathe with difficulty in May, 1887, and in June began to cough and choke in swallowing liquids.

¹ Read before the American Laryngological Association, 1888, and the larynx and trachea exhibited.

The patient had lost twenty-four pounds in weight within six months, despite a summer sojourn in the Adirondacks which had so improved his general strength that, from having been hardly able to walk on his arrival, he had become able to walk three or four miles at a stretch without fatigue and without dyspnoea.

On examination of the throat, I found a condition that I had not met before. At the root of the uvula, extending half an inch along each side the soft palate, was a pale, bilateral, symmetric cicatrix, broad at the raphé and gradually acuminate toward each extremity, of the same physical appearance as the cicatrices of syphilis. The epiglottis was gone; the cicatrized stump presented the same pale, glistening aspect as the cicatrix in the palate, and it was continuous into similar-looking tissue on either side, which represented thickened pharyngo-epiglottic folds. The top of the larynx looked as though overlaid by a thick, tense, uniform diaphragmatic membrane, which, without evidence of cicatrices at any point, left a small pear-shaped orifice in the centre; the butt in front and the apex in junction posteriorly (Fig. 1). The largest horizontal diameter was about three mm. at the butt, whence it tapered to a point at a distance posteriorly of about six mm. Through this membranous-looking structure the exterior outline of the aryteno-epiglottic folds could just be made out.

The parts were pale. Their appearance was quite similar to the picture of lupus of the larynx figured in the last edition of Lennox Browne's volume (*The Throat and its Diseases*, London, 1887, p. 398, pl. xiv. Fig. 119). There was no history of syphilis, nor had I any reason to suspect infection.

The picture was the picture of lupus; the cachexia, the cachexia of tuberculosis; the diathesis that of scrofulosis.

There was evidence of disorganization going on in much of the left lung and in the upper portion of the right one. The sputa, which were ejected with difficulty accompanied by a sort of sneeze of the glottis, if I may so describe it, were decidedly tuberculous.

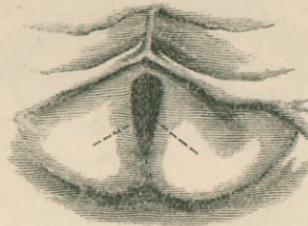
The conclusion I arrived at was that this was a case of congenital syphilis which had become cured with slight defect in the soft palate, loss of the epiglottis, and adhesions between the upper surfaces of the ventricular bands which, with the aryteno-epiglottic folds had become stretched into a sort of diaphragm. The closest scrutiny with the oxyhydrogen light and with magnifying mirrors did not disclose any trace of a cicatrix in this diaphragmatic tissue. Hence there was some suspicion that this formation might have been congenital and that contraction had taken place of late years in consequence of recent inflammations or of irritation set up by the tuberculous process.

The difficulty in swallowing liquids was readily overcome by adopting Wolfenden's suggestion of swallowing in the prone position from a tube in a tumbler. My patient, who was a machinist, explained the

mechanism by a sort of siphonage, making one continuous conduit of the rubber tube, the back of the throat, and the œsophagus, without impingement of the liquids on the superior surface of the larynx, the efforts at swallowing keeping the liquids in line.

As to relief for dyspnœa, the choice wavered between tracheotomy and section of the constricting tissues. It was determined to try the latter first, as tracheotomy could always be resorted to in an emergency. I began by dilating with the Schrötter's tubes. At first there was difficulty in introducing the smallest, No. 1; but at the end of about three weeks I was able to introduce No. 10, although the orifice closed up a little after its withdrawal. It did not contract, however, beyond the calibre of No. 5, and this passage gave me ample room, under oxyhydrogen illumination, to see that the vocal bands were free to move in efforts at phonation. In the belief that the diaphragm was composed of the tissues normally represented by the aryteno-epiglottic folds and ventricular bands, I had a special pair of scissors made to cut the fold; but on trying them found, to my surprise, that the tissue was so thick that I could not get a purchase. I then resorted to the naked knives presenting in the cardinal directions, which for more than twenty years I have been using to divide strictures of the larynx; and by sawing through fully half an inch of solid tissue, almost cartilaginous to the touch, beginning in the direction represented in the dotted lines in Fig. 1, I succeeded, in the

FIG. 1.



Stricture of the superior orifice of the larynx.

course of several days, in modelling a very fair representation of what I thought the normal arytenoepiglottic folds ought to be. Several pieces were thus sawed out solidly. Some were examined microscopically in Philadelphia, others in Washington by Dr. W. M. Gray, of the United States Army Medical Museum. Dr. Gray wrote me that he cut the largest piece only, not thinking it worth while to examine the little pieces unless specially requested. The specimen contained many bacilli, some of them in large giant cells. Dr. G. de Schweinitz, of Philadelphia, found in the sections he examined a somewhat thickened epithelium, beneath which was a granulation-like tissue, with occasional giant cells and numerous tubercle bacilli.

After the posterior adhesions had been divided and the resection of

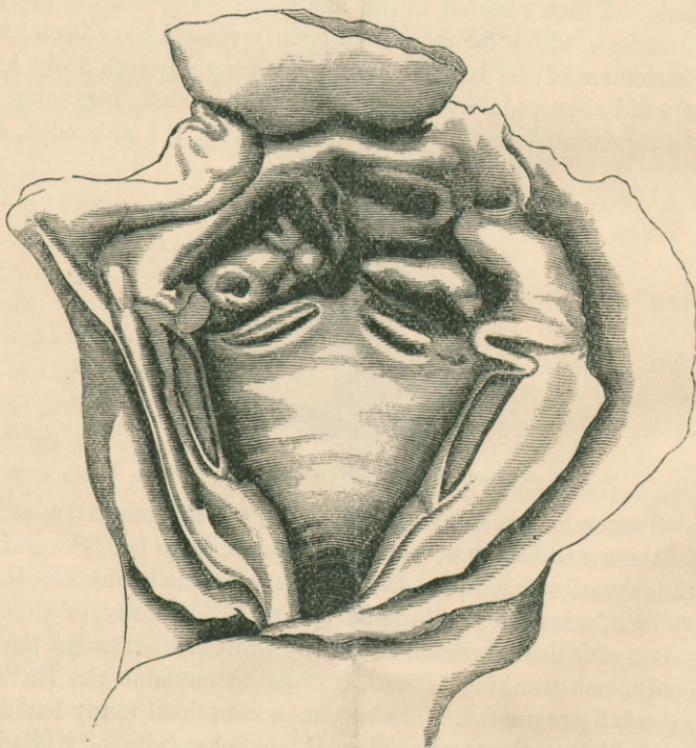
the lateral parts had been effected, the picture assumed the ordinary aspect of tuberculosis of the larynx.

There was no disposition to retraction, and the operative wounds in a great measure cicatrized, although the wedges of tissue exsized had contained numerous tubercle bacilli. This cicatrization was spontaneous.

The subsequent clinical history was the usual one of tuberculous laryngitis, and the patient died with pulmonary œdema in the latter part of February, 1888.

Examination twenty-five hours after death showed both lungs tuberculous; the apex of the left one being riddled with small cavities, and the base of the right lung being healthy. The larynx showed very great thickening of the aryteno-epiglottic folds and ventricular bands, with detachment of the fibrinous portion of the vocal bands from the muscular portion, the intervening tissue having cicatrized. Both arytenoid cartilages were carious and exposed. The raw surfaces of the cuts made in resection were in great measure cicatrized (Fig. 2).

FIG. 2.



The larynx exposed posteriorly.

The specimen has been preserved for future references in the United States Army Medical Museum, Washington.

