A CASE OF PRIMARY TUBERCULOSIS OF THE LARYNX

BY

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PHILADELPHIA

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Mr. * * * æt. 29, unmarried, for several years driver of an ice-wagon, and compelled to begin his daily round at 1 A.M., had complained of sore throat for four months when, December 23, 1879, he was sent to me by the advice of Dr. Ross R. Bunting, of Roxborough, to whom he had recently applied for relief. He stated that his throat had been lanced a few weeks before, and with considerable benefit; but it could not be determined, from his account of it, whether a tonsil had been lanced, as he supposed, or the epiglottis, which, from his description of his sensations, might have been oedematous at that time.

His great complaint was of intense pain in deglutition. The voice was good, nutrition apparently unimpaired, general strength well conserved, temperature normal, and pulse ninety in the minute. There was no cough, and there were no abnormal sounds audible on auscultation and percussion.

Laryngoscopic inspection revealed (fig. 1) a much thickened epiglottis, very pallid in aspect, and with the omega-like compression well developed. An irregular racemose ulcer was visible upon the thickened edge of the epiglottis, on the left side. A second ulcer, of like configuration, occupied the left glosso-epiglottic ligament and extended to the base of the tongue.

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The supra-arytenoid eminences were enlarged and clubbed, and were overlaid with pale pultaceous deposit.

The ventricular bands were deeply congested and tume-fied; so that they quite concealed the vocal bands, which, from the character of the voice, were presumed to be normal.

The aspect of the parts was unmistakably that of tuberculosis; but the most rigid exploration failed to reveal any evidence of pulmonary lesion.

Several elder brothers and sisters of the patient visited me with him from time to time—all hale and hearty; but I was informed that within a few months a sister had died with a scrofulous tumor of the neck. There was no history of predisposition to pulmonary disease, and the exposure to which the patient had been subjected was said not to have exceeded that to which his brothers had been exposed, they all being engaged in the same business.

The pain on deglutition, in this case, far exceeded anything I had seen before from such limited local lesions. There was no return of fluids by the nasal passages. Solid food could not be swallowed; and fluids had to be taken in small quantities. The act of deglutition produced intense pain in the throat and in the left ear; and the effort to swallow brought tears into the eyes of the sufferer at each attempt. He was courageous, patient and docile; and it was evident that his distress in swallowing was genuine, and by no means exaggerated to excite sympathy.

The gravest sort of prognosis was made to the family.

The disease progressed steadily, anodyne inhalations of benzoin and conium affording temporary relief from time to time, and local applications of morphia obtunding sensibility to a sufficient degree to permit the deglutition of small quantities of milk at a time.

By January 1st, ulceration had begun on the right side of the edge of the epiglottis, so that the two sides became symmetrically affected in a few days. Meanwhile, ulceration took place at the central portion of the border of the epiglottis. As this progressed, the ulcers first noticed
gradually coalesced, so that by January 5th, the serpiginous ulcerative process almost encircled the epiglottis, especially at the lingual attachment of the left side. During this time the intra-arytenoid structures underwent marked wrinkling without any solution of tissue (fig. 2). The progressive destruction of the epiglottis, and subsidence of some inflammatory engorgement, now permitted inspection of the interior of the larynx, revealing the vocal bands to be intact (fig. 3), as had been inferred all along from the character of the voice.

About January 10th, the uvula became oedematous, and a slimy, serpiginous ulcerative process began to mount the right palato-glossal fold (fig. 4). This ulceration reached its acme in two days, and then ceased to progress.

Physical exploration of the chest now for the first time revealed dulness at the left apex, with bronchial respiration, the sounds being still normal on the right side. The pulse rate was 108, and the temperature in the mouth, 99°. Within a week, this dulness extended over the upper lobe of the lung, and the opposite side began to be dull on percussion. Respiration became progressively impeded, and the patient, in consequence, began to be confined to the house, having been able, up to this period, to attend at my office.

At this juncture, having visited the patient a few times at his home without affording any relief, I was dismissed from attendance, and the case was placed under the care of
a practitioner of homœopathy, who gave encouragement of relief with prospect of cure; and this physician continued in charge until the patient's death on March 7th.

An opportunity was afforded me to prosecute a post-mortem examination, in the expectation, on the part of the family, as I was told, that my diagnosis would prove to have been erroneous, and that the seat of disease would be revealed to exist in the liver, as confidently announced by the physician who had succeeded me.

The post-mortem examination was made by Dr. Seiler, in the presence of Dr. Bunting and myself, about sixty hours after death.

Dr. Seiler's report is as follows:

"The rigor mortis was well marked. The body was very much emaciated, and but little adipose tissue was found beneath the integument. The thoracic viscera alone were subjected to minute examination. The heart was normal. The liver was not diseased. The left lung was adherent throughout to the chest-wall, but the right lung was comparatively free.

"Tuberculous deposits were noticed in spots on the pleura of the left lung. Incisions revealed several small cavities in the upper lobe of the left lung, together with cheesy deposits. No cavities were found in the right lung, but there were tuberculous and cheesy deposits, though less well-marked than in the left lung.

"A few caseous glands were observed in the cervical region of the left side."

The larynx was removed, together with the soft palate, palatine folds, tonsils and tongue, and these parts were retained for close inspection. They exhibited lesions (fig. 5) very much as had been observed at the latest laryngoscopic examinations, save that the entire free portion of the epiglottis had been destroyed by ulceration.

The ulceration of the glosso-epiglottic sinuses was quite extensive, and had continued into the base of the tongue, with a partial loss of substance on the right side. The ulcerative process on the right anterior palatine fold had not progressed. The tonsils were intact. The ulceration on
the laryngeal surface of the epiglottis was quite marked, as also that upon the aryteno-epiglottic folds and the ventricular bands. The vocal bands were intact, as was also

the whole of the subglottic mucous membrane of the larynx, and the small portion of trachea preserved. All these points are well seen in the specimen herewith pre-
sent for examination, and in the accompanying photographs which were taken while the specimen was fresh and whole.

Dr. Seiler was kind enough to make a number of microscopic examinations of sections of the lungs, larynx, uvula, and palatine folds, and to prepare some sections, which are herewith presented, for examination under the microscope. Concerning these sections, of some of which he has made the drawings herewith submitted, Dr. Seiler reported as follows:

"The sections of lung presented the usual changes due to deposits of tubercle.

![Diagram of Infiltration of Epiglottis](image)

**FIG. 6.**

Infiltration of Epiglottis.
1. Small-celled infiltration.
2. Cartilage.
3. Cheesy deposit.

![Diagram of Mucous Gland in Mucous Membrane](image)

**FIG. 7.**

Mucous Gland in Mucous Membrane.
1. Infiltrated vessel.
2. Deposit of inflammation with cheesy centre.
3. Infiltrated mucous gland.

"A longitudinal section of the larynx, carried through the epiglottis, ventricular band, vocal band, and the first ring of the trachea, exhibited, under the microscope, ulcerations of the mucous membrane, especially in the uppermost part of the remnant of the epiglottis. The submucous connective
tissue was largely infiltrated with a small-celled product, which showed, in many instances, a tendency to the formation of depôts with cheesy centres. In some of these depositions, adenoid tissue could be demonstrated. At the lingual extremity of the glosso-epiglottic fold a large cheesy mass was observed, surrounded by a collection of small cells.

"The glands and follicles showed a proliferation of their epithelium, and many of the ducts were filled with granular débris. The lymph spaces around the glands were likewise infiltrated with small cells, and the blood-vessels showed the same infiltration in their walls.

"The perichondrium, cartilages and muscular tissue appeared normal."

The engravings, herewith presented (figs. 6 and 7), showing the microscopic appearance of two of the sections of the epiglottis, are from cuts executed by Dr. Seiler, from two of the slides exhibited under the microscope, for purposes of comparison.

Here, then, gentlemen, we have an instance of tuberculosis commencing in the epiglottis, invading the tongue, and the anterior palatine fold superiorly, and the supraglottic tissues inferiorly; with secondary tuberculosis of the lungs and lymphatic glands, but without local lesion in the infraglottic portion of the larynx, or in so much of the adjacent portion of the trachea as was removed from the subject; the local laryngeal lesions progressing but slightly, after the analogous manifestations were developed in the lungs; these manifestations commencing on the same side as the laryngeal lesions.

The exciting cause seems to have been exposure to intense cold.

The only applications that afforded any relief, while the case was under my care, were insufflations of morphia.
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