TUBERCULAR ULCERATION OF THE PETIOLUS REGION OF THE EPIGLOTTIS.*

BY TIMOTHY J. REARDON, M. D., BOSTON.

This condition is very rarely observed alone. After a thorough examination of the literature dealing with tubercular laryngitis, I have been able to find but two references to it, those of M. Schmidt and L. Pollnow. Heinze observed it once at autopsy.

Case.—J. S., Aet. 34. Business man. Family history excellent. Previous history: When a boy of eight, was thrown violently and had his nose fractured. Present History: He called on me for the first time on August 26, 1904. Complained chiefly of cough, night sweats, increasing emaciation, and pain on swallowing and hawking. Had been a mouth-breather for years. His tubercular trouble began about one year previous. His business had been of an exacting and laborious nature.

Physical Examination.—Lungs showed marked infiltration of both apices, with cavity formation in the left. Nose showed marked stenosis of both sides, due to deviation of the septum. Dry pharyngitis. The larynx showed round ulceration about the size of a three-cent piece on the petiolar region of the epiglottis. This was unaccompanied by edema; no ulceration could be seen elsewhere in the larynx. The larynx was pale in color; the ulcer covered with yellow tenacious mucus. No cartilage could be felt with the probe. The voice was strong in character; it caused him, however, some discomfort to speak. Applications of lactic acid (50 per cent solution) were made to the ulcer after curettement.

September 1. The epiglottis appeared slightly swollen.

September 27. The treatment with lactic acid continued and swelling still present, but not marked.

October 10. Again curetted thoroughly, and lactic acid continued.

October 25. Marked edema of epiglottis present for the first time, and slight edema of the aryepiglottic folds.

November 15. Continued treatment with lactic acid. Lungs show increase of process.

Treatment of a palliative character continued for remainder of time patient lived, but no improvement was noted at any time. He died on January 21, 1905. He did not suffer to any marked de-

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gree from his laryngeal trouble, the ulcer remaining local and no destruction of the upper segment of the epiglottis occurred.

PATHOLOGY.

Ulceration of other parts of the epiglottis is common, especially of the edges presenting into the oro-pharynx. The superior part of the epiglottis is prone to trauma, particularly when swollen. For this reason it ulcerates rapidly, and its destruction down to the tongue follows.

This type of the disease may assume the form of an epitheliomatous tumor of the epiglottis, as observed by Gougenheim and Cohn. Bertrand asserts that primary tuberculosis of the epiglottis is very rare. He reports three cases of ulceration of the superior edge.

W. Nikitin reports a case of primary nodular tubercular tumor of the epiglottis. It was removed, and on microscopic examination shown to be tubercular. The patient recovered.

Ramsay reports a case in a girl nineteen years old, of swelling and thickening of the epiglottis, accompanied by cough and hoarseness. No bacilli found. Solis Cohen reports a similar case. The negative character of sputum renders them somewhat questionable, yet the clinical picture given is very definite.

Collier reports a case with fissure-like ulceration, and with arytenoids slightly edematous. No microscopic examination was made.

A tumor form of tuberculosis was first described by Avellis as occurring in the larynx, and may appear on the epiglottis, but is more frequent in or near the sinus of Morgagni and is very rare.

Blumenfeld reports two cured cases of seven years' duration. Ewing and Nicoll report similar cases.

Rindfleisch (*Lehrbuch d. path. Gewebelehre* iv. Aufl. 1875, p. 325) speaks of the tubercular process, beginning about the glands between the acini and finally breaking into the gland and causing a funnel-shaped ulcer. It may be round in shape.

Ulceration on the posterior surface of the epiglottis has been noted by M. Schmidt as a cause of rapid infiltration of the epiglottis. When the latter occurs this form of ulceration should be looked for. Pollnow states that cases do occur with excessive infiltration without any ulceration being visible. An ulceration of the epiglottis can also produce edematous infiltration of the aryepiglottic folds and mucosa over the arytenoid cartilage.

Heinze says that ulceration of the epiglottis occurs in 55.3 per cent of laryngeal cases. As to the specific location of the ulcer,

he found it twenty-one times at or on the base of the laryngeal surface, three times on the side edges and once near the apex. In one, there was destruction of the upper half, accompanied by ulcer of the tongue.

Heinze reports double ulceration of the epiglottis occurring four times on the edge and three times on the apex, with ulceration of the inner surface. He observed bare cartilage twice in ulceration of the epiglottis, once on the apex and once on the edge. He also states that the larynx is affected next in frequency to the intestines in pulmonary tuberculosis.

McKenzie observed in his clinical study of five hundred cases of laryngeal phthisis that edema of the epiglottis was present in one hundred and sixty-five, many of these being in the early stage. The epiglottis was thickened in one hundred and twenty-five and ulceration was present in one hundred and eleven. In one hundred post-mortems, there was thickening of the epiglottis in eighty-one and ulceration in sixty-nine. He gives a very bad prognosis for all forms of tuberculosis of the larynx, only four cases where it was completely arrested.

A primary tubercular perichondritis causing rapid destruction has not been observed.

SYMPTOMATOLOGY.

Objective: Ulceration of the epiglottis occurs much more frequently on the lingual surface than on the laryngeal surface. It is generally superficial in character, but may reach to the cartilage. If the ulcers are numerous and coalesce, there is a large loss of substance, especially when the ulcer is located on the superior edge of the epiglottis. It then has a gnawed or scalloped appearance. Often the ulcer extends from the lingual base on to the epiglottis, causing it to necrose rapidly, leaving a large ulceration, with the remnant of the epiglottis presenting a thickened, excoriated stump.

Ulceration of the petiolar part of the epiglottis may be very mild in character, and remain localized for months (as in the case reported above) without any marked edematous infiltration. This infiltration, however, can be so marked that a diagnosis of an ulceration at this point may be very difficult, owing to the turban-like shape of the epiglottis, which is often five or six times thicker. This form is a very frequent concomitant of infiltration of the arytenoids due to tubercular disease of the posterior intralaryngeal surface, and also to tubercular disease of the lingual surface of the epiglottis.

Subjective: Dysphagia is the characteristic symptom. Schmidt found this most marked when the ulceration was located on the laryngeal surface and on the outer edges of the epiglottis. When the parts are infiltrated, a sensation of foreign body is present, and the motility of the epiglottis is impeded considerably. This gives rise to the possibility of swallowing the wrong way, which produces spasms of coughing. It also hinders tone production to a marked degree. It may exist without any symptoms. The objective symptoms are more marked in the late stages.

The early stage is apt to be overlooked, and very slight attention is given to ulceration of any kind on the under side of the epiglottis, principally because the swelling prevents a good view being obtained of the laryngeal surface with the mirror.

As mentioned in the case reported here, the ulceration began about the petiolus and remained local for two months before any marked edema occurred. It was only in the late stages that the aryepiglottic folds and arytenoids were involved. No ulceration existed elsewhere in the larynx at the beginning. In the last months of the disease the epiglottis showed some superficial ulceration.

TREATMENT.

Heryng says he curetted the under side of the epiglottis for tuberculosis, but that it is very difficult because of its mobility. Schech and Pollnow agree with Heryng on this great difficulty. Many instruments have been devised for assisting in operations about the epiglottis. Most of these are useless because they are so complicated in their design. To-day, better means can be used for steadying the epiglottis than were obtainable ten years ago. The Kirsstein autoscope is especially valuable for this purpose. The laryngeal sound designed by von Eicken for hypopharyngeal examination is also a very good aid.

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 No. 76 Commonwealth avenue.