BENIGN LARYNGEAL TUMORS.*

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Papillomata of the larynx are not rare. They occur more frequently than all other kinds of tumors of the larynx combined. Fibromata are second in order of frequency, but are comparatively rare.

Papillomata may occur as a single warty, cauliflower-like tumor, or like warts on any other part of the body; there may be several of them located in different portions of the larynx, but a growth in the posterior part of the larynx should always suggest the possibility of syphilis or malignancy. They are usually situated in the anterior part of the larynx and more frequently develop on the anterior half of the vocal cord than on any other portion of the larynx. They may occur congenitally, and are then usually associated with hypertrophy of the faucial tonsils or Luschka's tonsil or both; they may also be developed by the laryngeal irritation caused by mouth-breathing in children with adenoids or enlarged faucial tonsils, and in such cases they usually disappear when the adenoids and tonsils are properly treated. Papillomata of the larynx in children are, however, comparatively rare.

The etiology is difficult to determine; laryngeal strain or excessive use of the voice in speaking or singing may cause them, but they frequently develop in persons who use their voice very moderately and a few cases have been reported in deaf-mutes.

The pathology consists of hypertrophic changes in the papillæ with a proliferation of epithelial cells forming small round projections.

Fibroma of the larynx usually occurs as a single tumor, though the development of one on the edge of the vocal cord may cause a similar growth on the opposite cord.

Their etiology is uncertain. They are composed of a mass of dense connective tissue, scantily supplied with blood vessels, and usually present a rather round, smooth surface covered with mucous membrane.

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The symptoms caused by papillomata and fibromata are similar and consist of a sense of fullness or discomfort in the larynx; cough is frequently complained of. The interference with phonation is purely mechanical and is dependent upon the size and location of the growth and varies from slight hoarseness to complete aphonia. Spasm of the larynx sometimes occurs.

If the tumor is large, it will interfere with respiration, particularly upon exertion.

It is the intent of this paper to report three cases of laryngeal papillomata and three of fibromata, which it has been my good fortune to see and treat during the past year.

Case I. L. M., aged six, a well-nourished and active boy with a good family and personal history. Several months before consulting me, his mother noticed a slight hoarseness developing; this hoarseness gradually increased until he could only speak in a whisper. For more than a month he had been having difficulty in breathing and was unable to run and play on account of the impeded respiration. When asleep, his breathing was noisy and labored, making him very restless at night, and the repeated attacks of what his mother called croup were evidently due to spasm of the larynx.

Fig. 1.

Attacks of coughing were frequent.

A thorough examination showed the nose, naso-pharynx and pharynx to be normal.

The larynx was almost completely filled by a large, irregular, cauliflower-like tumor, covering the right vocal cord entirely and the anterior two-thirds of the left cord.

The diagnosis of papilloma was made from the macroscopic appearance of the tumor and intra-laryngeal operation advised. Under cocaine anesthesia a piece of the tumor was removed with Krause's double curette and examined microscopically and the diagnosis of papilloma confirmed.

Owing to the age of the child and his consequent lack of comprehension of how he could aid the operator by holding his head in the proper position and protruding his tongue as far as possible, the difficulties of the intra-laryngeal operation were greatly increased, but in several sittings I succeeded in removing most of the tumor.

All difficulty in respiration disappeared; the voice improved markedly, the cough ceased and the boy slept well, free from any attacks of laryngeal spasm.

At this time the mother returned to her home in the country, promising to bring the boy back soon, but the case has not been seen since.

(Plate I represents the condition of the larynx when first seen and after the last operation.)

Case II. M. F., aged thirty-two, a well-nourished and healthy man; history negative.

A slight hoarseness, which began five months previous, without any apparent cause, was the first indication that he had any laryngeal trouble. The hoarseness had steadily increased and was accompanied by a tickling sensation and cough; otherwise he felt perfectly well.

Fig. 2.

The whole respiratory tract, with the exception of the larynx, was normal. On the left vocal cord, at about its center, there was an irregularly round cauliflower-like tumor about 0.5 cm. in diameter.

The whole larynx was slightly inflamed.

The tumor was removed with the double curette and the base cauterized with chromic acid.

At the end of ten days the larynx appeared normal; the voice was clear and good and has remained so.

(Plate II shows the appearance of the larynx before the operation.)

Case III. C. D., male, aged forty-five. History negative; general health good. The patient is a smoker and drinks the stronger liquors moderately. He had been troubled by a gradually increasing hoarseness for two years, until his voice became very harsh and rough and it required considerable effort for him to speak above a whisper. His larynx felt irritated continually and frequently was quite sore; cough was a constant symptom.

The nose and naso-pharynx were normal.

The pharynx, epiglottis and larynx were all chronically inflamed and exceedingly sensitive.

On the anterior part of the left vocal cord there was an irregularly oval warty-like tumor, covering the anterior third of the

Fig. 3.

cord and extending over a small part of the right cord. A piece of the tumor was removed and the microscopical examination showed it to be papilloma.

In two sittings the tumor was all removed except a very small piece on the extreme anterior end of the left cord, and as all symptoms of irritation and cough had disappeared, the patient refused to have anything more done, although I assured him that it would probably recur if left in that condition.

Four months later the patient came to me again, as he was beginning to have a return of his former symptoms. A laryngeal examination showed that the papilloma was recurring. At present he refuses to have anything done, except local application (zinc chloride or alcohol), which give him considerable temporary relief.

(Plate III shows the condition in the larynx when first seen.)

Case IV. E. H., female, aged thirty-two, general history good. One and one-half years ago the patient first began to have occasional attacks of hoarseness which became more and more frequent and prolonged until the voice finally remained harsh all the time.

The upper respiratory tract was normal, the larynx was unusually small and the epiglottis was also very small and sharply curved from side to side, making a very narrow opening into the larynx.

Fig. 4.

On the free edge of the right vocal cord, at almost its center, there was a small, round, smooth tumor, about 2.5 mm. in diameter.

The tumor was removed with the double quirette and examined microscopically; it proved to be a fibroma.

Within a few days the voice was normal and has remained so ever since.

(Plate IV represents accurately the size of the larynx and the tumor.)

Case V. H. H., female, aged eighteen. History negative.

For eight months she had been troubled by a slowly increasing hoarseness.

There was a small spur on the nasal septum, but respiration was not at all impeded by it.

On the right vocal cord, at about its center, there was a firm, round tumor, 1.5 mm. in diameter; directly opposite, on the left cord, there was a thickened spot, surrounded by an inflamed area.

The tumor on the right cord was removed and proved microscopically to be a fibroma.

The thickening on the left cord was treated by local applications of zinc chloride and was rapidly disappearing, when the patient left the city.

Fig. 5.

(Plate V shows the larynx before the operation.)

Case VI. P. D., aged thirty-six, a healthy German contractor. Hoarseness, and cough extending over a period of sixteen months were the symptoms of which he complained.

The upper respiratory tract was normal.

In the anterior part of the larynx there was an irregularly, oval, nodular tumor, about 1 cm. in diameter, covering the anterior part of both cords and projecting up above them about 1.5 cm.

Fig. 6.

The macroscopical appearance of the tumor in the larynx suggested papilloma, but under the microscope it proved to be a dense fibroma.

The tumor was removed in four sittings and the point of its attachment, along the anterior fourth of the right vocal cord, was cauterized with chromic acid, and the larynx is now practically normal.

(Plate VI shows the appearance of the larynx in this case.)

There is nothing in the history of any one of the three cases of papillomata which gives us any clew as to the etiology; the possibility of smoking and drinking, as an etiological factor, suggested by Case III, is more than counterbalanced by Cases I and II, in which there was no such element; it is not wise to attempt to draw any conclusive deductions from so limited a number of cases.

The liability of papillomata to recur, unless thoroughly removed, is well illustrated in Case III.

In the three cases of fibromata there are also no conditions which can be reasonably considered as causes for their development.

In all of the cases the principal symptoms were hoarseness, caused by the tumors being so situated as to mechanically interfere with perfect apposition of the cords, and more or less cough, and the feeling of discomfort and irritation in the larynx.

In all such cases the treatment consists in thorough removal of the tumors, by intra-laryngeal operation, if possible, if not by an external operation.

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Four cases are presented. The first is a case of fracture of the infraorbital arch through the infraorbital notch with anesthesia of that portion of the face supplied by the infraorbital nerve.

The second is a case of deflection of the septum nasi with spur. The spur was removed and the septum straightened in the usual manner. The author mentions the use of tampons saturated with tincture of benzoin compound and states that the benzoin prevents decomposition.

The third is that of a woman who had swallowed a pin, which was found sticking through the mucosa on the under side of the epiglottis. It was removed with the curved laryngeal forceps.

The fourth is a case of hereditary syphilis of the nose in a girl four months old. In conclusion the author sums up the essential facts concerning the course and the treatment of hereditary syphilis.

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