A CASE OF EPITHELIOMA OF THE LARYNX. THYROTOMY. RECURRENCE AND DEATH IN FOUR MONTHS.*

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A gentleman, 52 years old, was referred to me December 4, 1899, with the following history:

Since an attack of grip one year ago his voice has been hoarse and at present he is almost aphonic. He is constantly annoyed by a hacking cough. Sputa are scanty and contain no tubercle bacilli, and there are no signs of lung trouble. Family history is good. The habits and general health of the patient himself have always been excellent, except for occasional attacks of rheumatism, and several years ago an obstinate course of eczema affecting the face and chest. He has been subject to boils and all his life has been more or less disturbed by warts on his hands. The latter fact is of interest in connection with a "verrucous diathesis" upon which great stress was laid by one expert whom he consulted. About fifteen years ago he had some kind of ulcerating lesion on the distal phalanx of his right thumb, which refused to heal and finally the thumb was amputated. The character of this ulcer is not clear, but it is said not to have been malignant and there has been no recurrence. There is no history of syphilis. The patient is not an inordinate voice user and is a moderate smoker. He has more or less chronic catarrh of his nose and pharynx, but is not a mouth-breather. He looks old for his years, but is very active in business and is seldom indisposed.

With the laryngoscope the right vocal band is seen to be infiltrated by a mass which roughens its margin and interferes with its motility. It is livid in color, but there is no general hyperemia of the larynx. In fact the mucous membrane in the region of the arytenoids seems pale and flabby. There is a small superficial ulcer near the vocal process. The voice is husky and breathing is stridulous, especially on exertion. The breath has no fetor. There is no pain, but the larynx feels tired and there is a sense of constriction after use of the voice. There is marked follicular pharyngitis and the right nostril is partially occluded by a deflection of the

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septum. No glandular enlargements can be detected and there is no pain nor sensitiveness over the region of the larynx. A small fragment removed with cutting forceps gave negative results on microscopic examination. A course of mixed treatment with increasing doses of potassium iodide made no impression and the conclusion was reached that the lesion was malignant. On being told of my suspicion the patient positively refused operation. He was therefore given a spray of suprarenal extract solution containing a grain of phenic acid in each ounce and inhalations of menthol in fluid albolene five grains to the ounce. He was directed to use his voice as little as possible and to stop tobacco and alcohol. About this time he confessed to me that four months before he had consulted one of my colleagues, who after several examinations, a tentative course of potassium iodide, and microscopic examination of a fragment removed with forceps, had pronounced the disease epithelioma. Of three sections examined at this period only one showed characteristic malignant changes. From this time the case progressed so favorably that there was a reasonable doubt of the opinions given. The voice was partially regained, the cough ceased, and the general condition improved until October, 1900, when he came to see me after a month in the woods, where he had caught a severe cold. He was aphonic, was coughing constantly and expectorating freely. The larynx was very angry and swollen the infiltration of the right side was much increased and the sputa were copious, tinged with blood and very fetid. To my surprise the patient began to improve after a week or ten days and slowly recovered ground in every particular, except as to his voice. In February, 1901, he consulted a leading specialist in a neighboring city, who expressed the opinion that the disease was benign, and that it should be removed through the mouth, or in the event of failure, by external operation. Encouraged by this opinion and being very anxious to recover his voice, he finally persuaded himself to submit to operative interference, although fully warned of the probable consequences of an endolaryngeal operation. Accordingly the latter part of May a portion of the growth was removed from the right vocal band with Mackenzie's forceps. The microscopic report follows: "The tumor began as an epithelial papilloma. The bulk of the growth still maintains the type of benign epithelial papilloma, which recurs locally after operation, but does not produce metastases. It is not possible to

say positively that the growth has passed the limits of simple papilloma and belongs to the class of malignant infiltrating epithelioma. In order to determine this point it would be necessary to have more of the underlying tissue." There was a great deal of inflammatory reaction after this operation, dyspnea became more and more distressing until on June 2, two weeks later, I was obliged to do a tracheotomy. A week after the trachea had been opened the larynx was split from below upwards, in the interval the patient having been very uncomfortable and at times in danger from clogging of the tube with viscid secretion. With the exception of the left ventricular band, all the soft parts were thoroughly curetted, especially the right vocal band and a considerable area of the lateral wall of the larynx immediately beneath it. In about a month signs of glandular involvement appeared and the wound over the thyroid, which had healed, began to break down. The conditions rapidly grew worse and death occurred four months after the laryngo-fissure and less than three years after the first laryngeal symptoms.

Contiguous pieces of tissue removed at the thyrotomy from different regions of the larynx were sent for examination to two microscopists and their independent reports are of interest.

Specimen No. 1, from right ventricle and band:

Report a—Superficial epithelial papilloma.

Report b—Carcinoma (epithelial type) in a high state of degeneration.

Specimen No. 2, subglottic neoplasm right side:

Report a—The great bulk of growth is a superficial epithelial papilloma—the epithelial growth has in a few islands invaded the connective tissue and taken on the characters of true epithelioma. These foci are of small extent and probably metastases have not yet occurred.

Report b—Carcinoma formation (epithelial type), but not so degenerated as Specimen No. 1.

The points of special importance in the foregoing case seem to be as follows:

1. The erratic clinical history. Instead of the usual progressive development of the disease, periods of marked remission and actual improvement were exhibited. While it is by no means unusual for cases of this kind to linger for years without much change, we rarely witness such decided improvement as in this instance twice occurred after the case had assumed a most threatening aspect.

2. Tardy invasion of the lymphatics, but speedy involvement after surgical interference with the neoplasm. It is a notorious fact that the structures of the larynx being included in a cartilaginous box through which no lymphatics pass a cancer strictly intrinsic is slow to infect the glands. But when this barrier is broken down at once the morbid germs begin their encroachment upon the lymph channels with the usual metastatic sequelae.

3. Contradictory microscopic testimony. Such results obtained with specimens removed as were these so as to include the whole thickness of the neoplasm would incline us to accept with hesitation reports based upon superficial fragments excised with laryngeal forceps. This experience should by no means discredit microscopic evidence at least when it is positive. It merely enforces the importance of repeated examinations when results are negative in the face of suspicious clinical signs. As to the latter the laryngoscopic picture gives us no single feature upon which we may rely for a diagnosis. The yellowish-white appearance described by Moritz Schmidt, the snow-white surface referred to by others, the sharp-pointed grass-like lesion considered by Felix Semon "extremely suggestive of malignant disease," are by no means always present. In nearly every case we are compelled to reach a conclusion by a careful and prolonged study of all the symptoms subjective and objective. The importance of recognizing the disease at an early stage, when a modified laryngectomy or an endolaryngeal operation may fill the requirements, is beyond question. A cancer of the larynx so extensive as to demand complete removal of that organ with adjacent parts is not operable. The chances are that the disease has already crept along a lymph channel beyond detection where it will soon become a focus of recurrence. The situation being fairly presented, but few would consent to submit to the mutilation involved in a complete laryngectomy, especially since immunity cannot be thereby ensured. In deciding upon the proper course to pursue in a given case the age, temperament, environment and general condition of the patient are considerations hardly secondary to the extent and duration of the lesion itself. Provided the latter can be identified early enough and in cases strictly intrinsic it seems to be clearly proved that a laryngofissure without extensive sacrifice of tissue is capable of eradicating the disease and protecting against recurrence.