

## MIXED TUMOR OF THE SOFT PALATE.\*

BY T. H. HALSTED, M.D., SYRACUSE, N. Y.

Carcinoma and less often sarcoma are frequently met with in the soft palate and tonsil: small pedunculated papillomatous growths are not at all uncommon on the uvula, soft palate and pillars of the fauces. Adenoma, angioma, dermoid tumors, cysts, polypi, and pretty nearly every kind of new growth has occurred in the fauces; nevertheless any form of benign neoplasm, other than the papilloma, is of such rarity in the soft palate or tonsil, that it would seem to be worthy of note and report.

Bosworth states in the last edition of his book, that there are in literature but seven cases of fibroma in the fauces. Adenoma, or one of its mixed varieties, as adeno-fibroma, adeno-enchondroma or other variety, is apparently more often found in the soft palate than any of the other non-malignant tumors, papilloma alone excepted.

*Case.* Mr. C. C., aet. 55 years, merchant, was referred to me in July, 1905, by Dr. E. J. Wynkoop. The patient complained of a sore throat and hoarseness, which had existed for a few days. The voice was thick, and somewhat muffled as well as hoarse. Some nasal obstruction of the left side. No earache or deafness. He gave a history of similar attacks at intervals of two to four weeks during the past two years, and at longer intervals for the previous ten or fifteen years. He has repeated attacks of acute bronchitis during the winter months, rarely in the summer. There was more or less constant hawking and clearing of the throat, aggravated during acute exacerbations. Excepting during the acute attacks, the voice was clear.

On examination the left tonsil was reddened, there was decided swelling in the peritonsillar region quite like a quinsy in appearance, the uvula was swollen and slightly oedematous, there was an acute naso-pharyngitis, and laryngo-tracheitis. On palpation the tonsil and peritonsillar mass were very hard. Local applications cleared up the acute inflammation, and in two or three days he was back to what he called his normal condition.

There was now no soreness or pain in the throat, no hoarseness, the voice clear. There was the usual hawking and clearing the

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\* Read before the 28th Annual Congress of the American Laryngological Association, Niagara Falls, May 31, June 1 and 2, 1906.

throat, with some nasal obstruction on the left side, no pain in or referred to the ear, and no deafness.

The examination revealed the same swelling on the left side of the fauces, the only difference now being in the absence of the superficial redness of the tonsil and uvula. The appearance was that of an enormously hypertrophied tonsil buried between the pillars, and almost entirely covered by them. The swelling was greatest in the soft palate above the arch, and was pushing the posterior pillar backward and largely obstructing the left side of the nasopharynx, extending up to the eustachian orifice. The mass was as hard as a stone and its surface rather nodular.

There was no external evidence in the neck of the growth, either by apparent swelling or on palpation. No glandular enlargement, no history of bleeding. He denied syphilis. He has had for many years a gastric disturbance, and is of a very marked neurotic temperament. Beyond the repeated acute attacks of tonsillitis and laryngitis, he is in very good health.

He has known of the swelling in the throat for at least twenty years, and during this time has been under the observation and the care of many laryngologists both at home and in New York City, and has consulted a number of general surgeons. Eight members of this Association have been consulted by him during the past five years, while several other throat specialists have either treated him or been consulted by him. Various diagnoses have been made, calculus, fibroma, cyst, and other forms of dense benign tumors, while several eminent laryngologists have believed it malignant. The majority advised removal, while two or three were most strenuous in advising against any surgical interference whatever, on the ground apparently that the growth was either malignant and would recur, or if not malignant, the danger of a fatal hemorrhage during the operation was so great that an operation could not be undertaken with safety, and the discomfort was not sufficient to warrant the risk.

With these conflicting opinions he was left much at sea, and did not enthuse when my opinion was given that the growth was not malignant, and removal advised.

During the next four weeks, he came to me for treatment of three acute exacerbations of tonsillitis (left side) and laryngitis. They all subsided in the course of two or three days, only to recur in a week or ten days. He considered operation but postponed it.

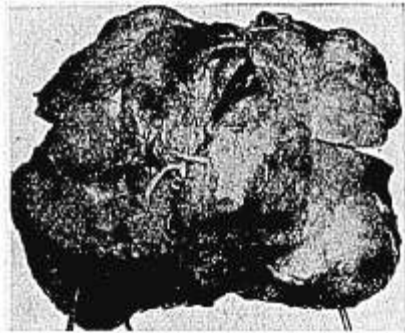
On his return from the White Mountains in the latter part of September, he said that on several occasions of late he had had some hemorrhage from the throat, about a teaspoonful each time. Examination revealed no change, and no apparent increase in size. There was no ulceration. I again urged operation, but before deciding he concluded to consult other specialists and general surgeons, and saw Drs. Myles, Coakley, McKernon, and Samuel Lloyd of New York, and Dr. Jacobson of this City. These gentlemen saw him separately and all concurred in believing the growth to be non-malignant, but were uncertain as to its exact nature, most of them thinking it in all probability a fibroma, and one a calculus. All agreed that the growth should be removed, three through the mouth, and two by external pharyngotomy. Dr. Myles had seen the patient three and one-half years before, and said there was no appreciable increase in size during this period.

On October 3rd, 1905, under cocaine applied externally and by submucous injection, I removed the growth. It was found that the tonsil was simply superimposed upon the tumor which, after removing the former, showed up as a yellowish glistening mass lying external to the tonsil and apparently independent of it. I separated the pillars from the growth with a dull-pointed dissecting tonsil knife, but largely with the finger; and, when the tumor seemed free, I passed a large snare around it supposing the growth was entirely enclosed by it. It cut easily, but the growth had been simply bisected, the remaining half being easily shelled out with the finger. The hemorrhage was comparatively slight but the growth left an enormous cavity, and on the posterior wall of it stood out for about two inches vertically, a vein as large as a goose quill, the wounding of which would have produced a serious hemorrhage. Dr. Wynkoop was present to assist in any such emergency should it occur.

The tumor, somewhat oval in shape, measured 7 cm. in its vertical diameter by 5 cm. by 4 cm. in its other diameters. It was encapsulated, as hard as a bone, and to the finger nail on its cut surface felt like bone or cartilage, and in its center were several small cystic cavities which probably contained fluid, though none was seen as it must have escaped when the growth was cut through with the snare.

The patient made a rapid recovery, the cavity being completely obliterated in two weeks, the soft palate and fauces looking like the other side within a month.

On May 24th, 1906, seven months after operation, he came for examination at my request. There is no evidence of any return of the growth, and one could not tell from appearances on which side of the fauces the tumor had been, excepting that there is a small depression the size of a pea, between the pillars at the arch, where the galvano-cautery had been used ten days after the operation, on what looked like a small piece of the growth left at the time of operation. He went through the winter with but one attack of tracheitis, has had no tonsillitis or sore throat since operation, and has gained twenty pounds in weight. He states that he is in better condition than he remembers ever to have been before.



Mixed Tumor of Soft Palate.

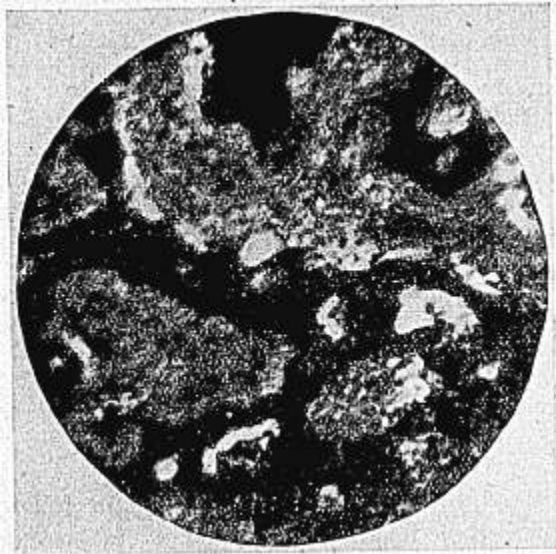
I am indebted to Dr. H. S. Steensland for the following report as to the microscopic findings and for the microphotographs which accompany the report.

"The tumor is a typical example of the mixed tumors of the salivary glands, the so-called cylindromata. The specimen fixed in formalin, consists of the encapsulated tumor. It is irregularly ovoidal in shape, 7 cm. long and hard. It evidently originated in connection with the parotid gland (possibly an aberrant portion) or in connection with mucous glands.

*Histological Examination.*—The tumor consists of connective tissue in which there are areas filled with epithelial cells. It is surrounded with a definite capsule. The stroma predominates considerably over the parenchyma. The stroma consists of rather a loose connective tissue with a tendency here and there to a cartilagi-

nous or mucoid appearance and contains relatively few connective tissue cells. In some parts there is considerable hyaline degeneration of the connective tissue. A few small areas infiltrated with lymphoid and plasma cells are seen. Where the connective tissue has a cartilaginous or mucoid appearance, it stains faintly blue with hematoxylin indicating the presence of mucin.

The epithelial cells vary in form, but are largely polyhedral and low columnar. The latter cells are largely at the periphery of the alveoli. The nuclei are uniform in size and are round or oval in form. They contain nucleoli. Karyokinetic figures are rare.



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In many of the alveoli there are spaces. Some are filled with stroma and represent projections of the stroma into the epithelial meshes. These spaces as a rule are rounded in form though sometimes they are irregular. They may be seen to communicate with each other, and with the surrounding stroma.

Other spaces of a different character appear to represent glandular lumina and occur in considerable numbers. They vary in size from the diameter of a red corpuscle to three or four mm. These spaces are lined with low columnar epithelium and contain hyaline material staining with eosin, evidently a secretion.

The blood vessels of the stroma are relatively few in number. No necrosis is evident. The stroma contains groups of fat cells.

The salivary glands, especially the parotid gland, are often the seat of these peculiar tumors. They occur also in the lachrymal glands. This has been pointed out by Verhoeff, and his views in regard to their origin and nature are here followed. (1) "They have been regarded as endotheliomata, but are really of mixed ectodermal and mesenchymal origin. The parenchyma is derived probably from the glandular epithelium and not from endothelium. The cartilage, mucous tissue and bone, that frequently are present, probably represent an atypical development of the mesenchyma."

Wood, in the *Annals of Surgery* for January and February, 1904, has investigated the mixed tumors of the salivary glands, reporting on the histology of 59 tumors from the salivary glands, lip and pharynx, five only of this number being from the soft palate or pharynx. He states that 95 per cent of the tumors of the salivary glands are of this mixed type. Only 55 per cent were permanently relieved by extirpation, thirty-three cases being cured by operation following recurrence. After incomplete removal he finds that the tumor is apt to take on more rapid growth. These mixed tumors practically never give rise to metastases, either within the regional lymph nodes or elsewhere. They have been described as occurring in the palate, in the antrum of Highmore, and in the nose, and less frequently in other regions, such as in the skin.

Ribbert suggests that in some cases they originate in connection with glands resembling the salivary glands, such as the mucous and sweat glands, and Dr. Steensland suggests the tumor removed from my patient possibly originated from an aberrant portion of the parotid or from a mucous gland.

831 University Bldg.

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