A LARGE CYSTIC TUMOUR OF THE
SOFT PALATE.

BY

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(With Special Plate.)

THE following notes describe a large unilocular cystic tumour which was removed from the soft palate. Microscopically this tumour had the appearance of an angio-endothelioma, but clinically the findings suggested a mixed-cell tumour.

The patient, a man aged 57, was sent to the laryngological department of the Liverpool Eye and Ear Infirmary complaining of a "lump" in his throat. He stated that he had noticed a small swelling in the left side of his throat when on active service in 1915. The swelling had been constantly present since that date, and had increased gradually in size during the past fourteen years. The lump had never been painful until it was punctured at another hospital four weeks previously.

On examination there was a large swelling about the size and shape of a hen's egg, almost completely filling the oropharynx. This tumour appeared to occupy the left half of the soft palate, pushing forward, and to the right, and to extend from the junction of the hard and soft palates above to the level of the base of the tongue below. There was a small chink between the right tonsil and the tumour, into which was crowded the uvula. The mass was fixed, firm, and painless on palpation, and the covering mucous membrane was normal. His nose appeared healthy, and the accessory sinuses clear. It was mechanically impossible to examine the larynx or nasopharynx; the latter, however, was not seriously encroached upon, as nasal respiration was quite free. The neighbouring lymphatic glands were not palpable.

X-ray examination by Mr. Thurstan Holland showed no bony involvement; the Wassermann reaction was negative. The provisional diagnosis was mixed-cell tumour of the palate.

The tumour was removed under open ether anaesthesia by blunt dissection; good approach was afforded by the Boyle-Davis gag. Incision over the tumour exposed a bluish capsule, which was separated without difficulty, except at the posterior and inferior poles. During the later stages of the dissection the capsule was ruptured accidentally, and about two and a half ounces of straw-coloured fluid escaped. Haemorrhage was only slight. The wound was sutured and drained at its lower end. The left tonsil became apparent then for the first time as a small flattened plaque. The tumour when excised was seen to consist of a large cyst with solid tumour formation at its lower and posterior parts, and to contain numerous large friable intracystic papilloma-like structures. The patient made an uneventful recovery, and two months later the soft palate appeared symmetrical, was of good mobility, and functioned normally.

Dr. Hugh Smith, pathologist to the hospital, reported as follows:

Macroscopic.

A cystic tumour about the size of a large tangerine orange. Upon section it shows a wall of a uniform thickness of about a quarter of an inch, and filled with intracystic growths, which are very friable. About two drachms of straw-coloured fluid was also present, but more of this was lost in rupture of the cyst during enucleation. The outer wall is smooth, except at one small area, at which point it had been adherent to surrounding tissues.

Diagram of site of
tumour.

Microscopic.

Cyst Wall.—The sections show that the wall consists of hyaline fibrous tissue in which are interstitial spaces, mainly small and containing isolated red blood corpuscles. In other parts larger spaces resembling cholesterol clefts are seen with foreign body giant cells in this region. A further feature is a considerable amount of apparent blood pigment, golden brown in colour, lying free in places and in others within the cytoplasm of typical and atypical epithelial cells of a squamous type. The inner part of the wall is non-cellular and homogeneous. There is a moderate amount of leucocytic infiltration, mainly of the round-celled type.

Intracystic Growths.—The sections of the solid intracystic growths show what might well be termed an angio-endothelioma,

the bulk of the growth being composed of endothelial cells, with a tendency in parts to an alveolar arrangement. The blood spaces are numerous, varying in size, some showing a flattened single endothelial cell lining, others no lining cells. Red blood corpuscles are present in most spaces, with occasional leucocytes. The first impression of the microscopic section suggested a similar picture to that seen in a "mixed" tumour, but the sections examined show a uniform appearance, which I have termed an angio-endothelioma.

Mixed-cell tumours are of comparatively common frequency in the oro-facial region, where they are grouped around the upper alimentary and respiratory tracts. The usual situation of such tumours is in the salivary glands, but they are found also in the palate, lip, orbit, molar glands, and, very rarely, in the nasopharynx,¹ nasal fossae,² and, as recently described, growing from the posterior aspect of the thyroid cartilage.³

The situation where these neoplasms are found next in order of frequency to the salivary glands is in the palate. In the latter location, however, they are regarded as rare tumours. Eggers,⁴ in 1928, reported that there were published accounts to be found in the literature of over one hundred mixed-cell tumours of the palate, but only about one-third of these had occurred in the soft palate. Sonnenschein,⁵ in a more recent contribution, states that the number of mixed-cell tumours of the soft palate recorded up to date (1930) is under fifty, and he describes two personal cases. Sturgis,⁶ in tabulating a series of fourteen cases of mixed-cell tumour of the soft palate, states that these tumours usually occur on one or the other side of the soft palate, and very rarely in the mid-line. The most important clinical facts connected with mixed-cell tumours are their long duration, slow development, and absence of metastases; malignancy of such palatal neoplasms is much rarer than that of similar growths occurring in the salivary glands. Sturgis is of the opinion that the duration of the tumour depends on the susceptibility of the patient to one or more of the following factors in order of frequency: (1) interference with phonation; (2) interference with deglutition; (3) interference with respiration.

In the case reported above the tumour had been present in the left side of the soft palate for at least fourteen years, and there was no clinical evidence of any metastases. Probably owing to the very slow growth of the tumour the patient became accustomed to the gradual diminution of the air and swallowing space, and he made no complaint of dysphagia, and could eat ordinary food until the "lump" had been needed. His speech was altered, but respiration was unaffected.

Histologically the neoplasm described consists of epithelial cells, endothelial cells, and blood spaces. Fry,⁷ in his account of mixed salivary tumours, describes one type of mixed-cell tumour in which the cells are abundant, are closely packed in irregular masses without any definite arrangement, and in which it is impossible to demonstrate any stroma. Eggers also, in his histologic analysis of four cases of mixed-cell tumour of the soft palate, reports that they consisted mostly of dense masses of epithelial cells, cartilage being very rarely found.

The majority of mixed-cell tumours are characterized by a scanty blood supply, the vessels being few in number and very thin-walled, often consisting merely of an endothelial lining. Nevertheless authentic examples of mixed cell tumours have been described in which there has been an abundant vascular network.

Eggers describes a tumour (Case III) which "consisted almost wholly of massed epithelial cells; within the masses were cavities lined by flattened cells; cartilage or squamous epithelium were not found." Fry also records a case of a tumour entirely encapsulated, a large part of which consisted of a solid mass of cells of irregular shape, with no definite arrangement; a prominent feature was its extreme vascularity.

Small cysts due to degenerative changes are of frequent occurrence in mixed salivary tumours, and it is probable that in the case recorded above there had been a periodic leakage of blood from such an extremely vascular tumour into a small cyst, thereby increasing its size, and giving rise to the straw-coloured fluid contents and the deposit of blood pigment.

The above features lead the writer to conclude that the tumour was a mixed-cell tumour of the soft palate, with an exceptionally abundant blood supply, and containing a cyst of unusual size.

No attempt is made to discuss the etiology of this tumour, as there are numerous and excellent contributions by many authors available for consultation; and as McFarland⁶ says, "Whoever in the face of these excellent contributions undertakes to add to the literature might well be called upon to apologize."

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DELAYED OPERATION FOR TRAUMATIC INTRA-CEREBRAL HAEMORRHAGE.

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(With Special Plate.)

THE mortality after operations for traumatic intra-cerebral haemorrhage is sufficiently high that it may be worth while considering whether delayed operation is more likely to be beneficial in such cases.

The following particulars of a case of head injury I recently operated on will, I think, be of general interest. During a quarrel a man, aged 30, received a blow on the left side of the head with a bamboo stick, at about 7 p.m. on April 20th, 1930. He was brought to the hospital at 8.30 o'clock the following morning in an unconscious state. He had a large contusion over the left side of the forehead, involving the eyebrows, eyelids, and the temple. Both pupils were contracted and equal, and there was no haemorrhage or cerebro-spinal fluid from the ear, nose, or mouth. His pulse was 62, small in volume, respirations 20 and shallow, and he was having involuntary micturition and defaecation. He remained in this state till April 24th, when he recovered consciousness, but was unable to speak, and was completely paralysed on the right side (face and limbs). He was still having involuntary micturition and defaecation. His pulse was 68, respirations 18; pupils both reacting to light, but left a little sluggish, and deep reflexes completely abolished on the right side. He was advised an operation, which he refused. He continued to be in the same state, and in spite of careful nursing he developed a small bed sore over the sacrum. On May 6th he started getting evening rise of temperature, and he was complaining of persistent headache. On May 17th he consented to be operated on. When under chloroform a U-shaped flap with apex upwards was turned down from the temporal region; a longitudinal fissured fracture, running from the supraorbital margin upwards, backwards, and outwards across the frontal and parietal bones as far as the parieto-squamous suture, was seen. The skull was trephined over the middle of this and a disc of bone removed. The anterior branch of the middle meningeal artery was exposed under the trephine circle and was found not to be damaged. There was a little oozing of dark venous blood from the anterior edge of this opening, and the circle was enlarged in this direction, the underlying surface being digitally explored; a few clots were expressed from the antero-inferior angle of this opening. As there was not sufficient evidence of extradural pressure to account for his symptoms, the opening was further enlarged towards the postero-superior angle and the underlying surface explored with the fingers. There was no evidence of accumulated blood-clot in this area. The dura was then opened by a crucial incision (after ligating the middle meningeal artery, as it was in the way) and the cortex was exposed. The surface was dull and bulging through the opening in the dura. A

closed pair of artery forceps was thrust into the substance of the brain in the direction of the pre-central convolution, and on opening the blades a large quantity of altered blood-clot and degenerated and softened puriform brain matter was evacuated. The cavity was subsequently irrigated with saline, and at this stage the brain regained its colour and began to pulsate. The dura was then stitched up, and the wound was closed with a superficial gauze drain. He was put on regular doses of hexamine. His temperature came down to normal the next day, and when the gauze drain was removed a little pent-up blood-stained fluid was evacuated. On May 22nd slight finger movements were noticed on the right hand. His limbs were now supported on splints, the shoulder being kept abducted and the wrist dorsiflexed. On May 25th slight movements of the right leg were noticed. Sutures were removed on this day, and the wound was found to have healed by first intention. The patient by now had gained control over micturition and defaecation, and he was given daily massage to his paralysed limbs, morning and evening. On May 30th he spoke a few words. On June 8th he could walk with the help of a stick, although with jerky movements at his ankle, could move the fingers of his hand slightly, and was able to speak a few words; but he was absolutely unable to move his forearm or hand independent of support. On June 12th he was able to move his wrist and elbow, but his power was still very weak. On June 14th he was able to flex his elbow-joint voluntarily, and when the arm was raised up and supported his efforts to raise the arm above the level of the shoulder were noticed by slight contractions of the deltoid and spinati. On June 20th he was discharged from hospital, when he was able to walk well and speak, though slowly and with deliberation. He had completely recovered function in his lower limbs, and was able to use his upper limb with a slight weakness of the abductors and external rotators of the upper arm, and with inability to approximate his little and ring fingers. On August 1st he appeared in court, and argued his own case. His movements in the shoulder-joint are still restricted and weak. There is slight wasting of the muscles of the hypothenar eminence, and inability to oppose his ring and little fingers continues. His speech is slow, and there is a little hesitancy in it.

The photograph reproduced in the Plate shows the site of operation and demonstrates the patient's ability to raise the arm to the level of the shoulder, and also shows his inability to approximate the little and ring fingers.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

AN UNUSUAL CASE OF STIFF KNEE.

(With Special Plate.)

THE following case appears to be a unique example of "stiff knee," and there is, so far as I am aware, no record of a similar case in the literature of the subject. The rarity of the condition places it in the category of a museum specimen, rather than in the more valuable and more useful sphere of everyday work. Nevertheless it is worthy of being put on record, and therefore I venture to publish it as a radiological contribution to the study of stiff knee.

Rather less than a year ago I was asked to make an x-ray examination of a left knee-joint, which had become practically immobile in a slightly flexed position, and by the courtesy of the patient's doctor I was able to obtain the following history.

Mrs. H., aged 53, states that the earliest feeling of discomfort in her left knee was experienced about the beginning of the year 1926, and took the form of stiffness rather than of pain. Up to March, 1927, she was able to walk quite well, and to extend and flex the knee without any great discomfort beyond a feeling of stiffness at the knee-joint. In March, 1927, she underwent an operation for urethral caruncle, and she states that she was able to walk into the operating theatre in quite a normal manner, but on waking up in bed from the anaesthetic she experienced an acute pain in the knee. This was the first occasion on which really acute pain had occurred. She remained

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DAVID KYLE: PATELLA TRANSFIXED BY EXOSTOSIS FROM FEMUR.

FIG. 1.—Skiagram, actual size.

FIG. 2.—Showing relationship of bones.