ON A CASE
OF
FIBROUS TUMOUR OF THE UPPER JAW.
SUCCESSFUL REMOVAL WITHOUT DEFORMITY.

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I AM indebted to my friend, Mr. Haldan, of Preston, Lancashire, for the following case, who kindly submitted the patient to my judgment during a professional visit to that town in June last :—

J. R.—, an unmarried female, aged twenty-six, had always enjoyed good health, and menstruated regularly. She seemed to have no hereditary predisposition to malignant disease.

The history of the affection is, that three years ago there appeared a swelling of the gum and cheek. It was referred to toothache, and was so regarded by a surgeon whom she consulted, and who extracted one, either a bicuspid or a molar. The swelling of the gum (which had burst before the tooth was extracted) did not, however, subside, but gradually during the intervening period increased to its present size, being all the while free from pain.

On examination a tumour was found occupying and involving the greater part of the left superior maxillary bone, and bulging the cheek. Its outline was globular and slightly irregular, protruding in the situation of the antrum, outwards, nearly an inch beyond the alveolar margin, and inwards, along the palatal surface (which was also bulged) nearly to the median line. It extended also into the nostril, and in front as far as the sockets of the incisor teeth, terminating distinctly behind at the sphenomaxillary fissure. The lower or alveolar border was slightly ulcerated where teeth had existed, otherwise the soft parts covering it were healthy, and the adjacent absorbents appeared free from contamination. The tumour was very firm and solid, without any perceptible points of softening.

Taking into consideration the history of the case, the patient's age, her good health, the physical characters of the tumour, together with the healthy state of its coverings, and believing that the extent and connexions of the disease were accurately defined, I expressed an opinion that it was in all probability a fibrous tumour, which had originated in the alveolar border of the bone from the irritation of diseased teeth, thence extending into the antrum, expanding its walls in the direction of the mouth, nose, and cheek, and that its removal (for which the patient was extremely anxious) might be undertaken with every prospect of success. Accordingly, on the following day (June 29th), at the request of Mr. Haldan, and with the assistance of that gentleman, Dr. Broughton, and Mr. R. C. Brown, the resident surgeon of the Preston Dispensary, who very efficiently administered chloroform, I performed the following operation :—

The incisor teeth of the affected side having been extracted, the knife was passed into the nostril, and carried thence into the median line of the lip; the soft parts covering the tumour, together with the cheek, were then detached and raised to the level of the orbital margin. The bleeding was pretty free at this stage, but was readily commanded by pressure. The mucous membrane was then divided horizontally above the upper border of the tumour, and likewise along the palatal surface of the bone in the mouth. My next object was to divide the osseous structures so as to leave the orbital plate intact, my examination having led me to believe that this portion of bone was free from disease. A saw was therefore carried across the bone above the tumour, as near as possible to the orbital margin; it was next passed partly through the palatine process; then with a strong pair of Liston's forceps the further division of the healthy bone forming the boundaries of the tumour was effected; the mass was now seized with a pair of forceps, shaken from its bed, and detached. A rapid examination, however, sufficed to show that the saw in the horizontal cut had traversed the disease in the antrum, and that nearly a third of it yet remained; this, however, was readily separated by the finger in the act of examination, shelling out, as it were, like a nut; the thin orbital plate could then be felt intact and healthy. Not a single vessel required a ligature. The chasm having been filled with lint, the divided nostril and lip were united by the deep silver wire suture.

The patient was very depressed for some hours after the operation, partly from the shock and partly from the chloroform, but was doing well up to the time of my leaving the town by the night train. Her subsequent progress (of which

a detailed account is not necessary) was very satisfactory, she being able to return home to her friends, some seven miles from Preston, at the end of ten days; and Dr. Broughton assures me, so slight is the disfigurement, that it requires very critical examination to detect that she has undergone so great a mutilation as the loss of the upper jaw-bone.

Examined by my colleague, Mr. Hulme, the tumour presents the following histological characters:—It is the size of a turkey's egg, involving and infiltrating the greater part of the left superior maxillary bone, and extending upwards into the antrum, its upper and posterior surface having a nodulated or mamillated appearance, and its anterior portion being marked by the under surface of the orbital plate. On section, the structure of the tumour appeared of a dense, homogeneous, somewhat fibro-cartilaginous substance, encased by a thin shell of bone sending processes into its interior, which consisted of a hard bony mass, having a radiating appearance, the fang of a molar tooth being imbedded in its substance. The upper mamillated surface was soft and free in the antrum, covering the central bony structure on its surface. Microscopically the softer parts consisted of elongated cells, having a tendency to form fibre—a tendency especially evident at the thin edge of a section, which showed the fibroid cells very clearly, their nuclei being rendered evident on the addition of dilute acetic acid. Calcareous matter was deposited along the course of the fibres, and the central hard portion of the growth consisted of earthy salts, converting it into a stony mass. The tumour may thus be regarded as a fibrous growth undergoing calcareous degeneration.

The operation of removing the upper jaw, at all times a difficult and formidable undertaking, and one not to be contemplated without due consideration, has in modern times been brought to great perfection, chiefly by the limitation of the incisions formerly considered necessary for the exposure of the growths affecting it. This merit is due to Mr. Fergusson. Having seen that gentleman perform this operation, and having also heard him dwell in his clinical remarks upon the advantage that can be taken of the natural expansion of the nostril by an incision carried from it into the median line of the lip, I determined to avail myself of this method of procedure, and found that I could completely expose the bony structures without any embarrassment for room in the subsequent step of dividing them beyond the limits of the disease. The still greater advantages of avoiding the division of the branches of the portio dura (which must occur if the cheek be incised from the prominence of the malar bone to the angle of the mouth). the small amount of bleeding (no ligature being necessary in this case), and the very slight disfigurement subsequently, must be obvious.

Two other points in connexion with this case may be alluded to:—

1st. The possibility of the swelling being but an expansion of the walls of the antrum by fluid accumulated within its cavity. Such a case occurred in the practice of my colleague, Mr. Lawson, at the Great Northern Hospital. In consultation, it was deemed solid by himself and others, but proved otherwise. So with one of M. Gensoul's cases quoted by Mr. Stanley.* A child, aged thirteen, had a large tumour of the cheek; the arch of the palate was depressed, the nostril closed, and the nose pushed to the opposite side of the face. It was determined to remove the bone. The incisions of the soft parts had been made, when it occurred to M. Gensoul to pass an instrument into the tumour before dividing the bone opening into the cavity of the antrum, which was greatly enlarged, but not otherwise altered, and in which a carious tooth was found in the bottom of the cavity and adhering to its walls. A similar case of Mr. Fergusson's is also recorded,† where there was great protrusion of the cheek, hard palate, and other signs of tumour, so that the patient was sent up to town for the purpose of having the bone extirpated. A correct diagnosis was, however, made, and the cure perfected without this formidable measure. In my own case, I took the precaution of settling this question before commencing the operation, by an attempt at perforation, but with very little doubt of the nature of the case from the implication of the alveolar border of the bone in the disease.

2nd. As to chloroform. A great objection is taken by some to its administration in operations of this kind, from the danger incurred by the blood trickling into the glottis, the irritability of which is necessarily weakened; but it appears to me that we are scarcely justified in withholding this great boon from a patient who has to undergo one of the most frightful mutilations to which the human body can be subjected.

Weymouth-street, Portland-place Jan 1861

* Standing on the ...
† Medical Times, May 18th, 1850.