

LONDON JOURNAL OF MEDICINE,

A MONTHLY

Record of the Medical Sciences.

APRIL 1851.—No. XXVIII.

ORIGINAL COMMUNICATIONS.

ACCOUNT OF A CASE OF SPONTANEOUS COLLAPSE OF THE ANTRUM.

By W. WHITE COOPER, Esq., F.R.C.S.; Senior Surgeon to the North London Eye Infirmary, and to the Artillery Company; Ophthalmic Surgeon to St. Mary's Hospital.

(Read before the Medical Society of London, March 1, 1851.)

THERE are few gentlemen engaged in the practice of our profession, who do not, once at least during their lives, meet with cases of so anomalous a character as to set at defiance all the recognised rules of science and of art. We are in the habit of terming such cases *unique*; but it would probably be more correct to regard them as examples of disease occurring only at rare intervals, and then forgotten. Notwithstanding the vast accumulations of published observations which bear testimony to the diligence and pains-taking industry of our predecessors, they can hold but an insignificant relation to the mass of knowledge which has been lost through not being placed on record. Sir Benjamin Brodie has well remarked, in one of his Introductory Discourses, that "the best part of every man's knowledge is that which he has acquired for himself, and which he can only to a limited extent communicate to others. You will spend your lives in endeavouring to add to your stores of information; you will from day to day obtain a clearer and deeper insight into the phenomena of disease; you will die at last, and three-fourths of your knowledge will die with you; and then others will run the same course. Our sciences are indeed progressive; but how much more rapid would their progress be, if all the knowledge that experience gives could be preserved."¹

I have been led to these reflections, by the signal failure which has attended my endeavours to obtain information from published authorities on the case I am about to relate.

CASE. On the 22nd March, 1849, I was consulted by Margaret Ryan, aged 25, a strongly-built young Irish woman, who complained of a flow of tears over the cheek. Her appearance was remarkable; there was a deep depression of a purplish hue between the side of the nose and the malar bone of the left side, precisely as if a portion of the superior

¹ BRODIE, Sir B. C. Introductory Discourse, 1843.

maxillary bone had been removed. It was bounded superiorly by the inferior margin of the orbit, which partook of the depression; inferiorly by the base of the alveolar process; externally by the malar process of the superior maxillary bone and the malar bone, and mesially by the nose. The distance from the bridge of the nose to the deepest part of the depression was one inch and four tenths, or nearly one inch and a half; on the right side, the admeasurement between corresponding points was barely an inch. The angle of the mouth on the affected side was slightly directed upwards, which became more marked when she smiled. There was slight *stillicidium lachrymarum*.

HISTORY. Until seven years previously, her face had been perfectly symmetrical; but about that time she first perceived a dusky mark beneath the left eye, unattended with pain or weakness of the organ. This dusky appearance gradually extended down the face by the side of the nose, and, after a time, some flattening of the cheek became apparent. Gradually and almost imperceptibly this increased, still without any sort of pain or uneasiness, until the face had assumed the form described; but it was not until a week before I saw her that there were symptoms of discomfort in the eye and cheek, when she felt shooting pains, and was teased by the watering of the eye.

On examining her mouth, the teeth of the left side were found *in situ*, but greatly decayed, and the gums were in an unhealthy state. There was not, however, any alteration in form, either of the alveolar process or the hard palate, neither was there any obstruction in the corresponding nostril, though the patient thought it rather drier than the other. The finger recognised a deep depression in the situation of the antrum, but there was no indication either of loss of substance or destruction of bone; the cheek seemed simply to have sunk.

Thinking it possible that the decayed teeth might have something to do with these changes, I recommended extraction of the cuspid and bicuspid. This was kindly done by Mr. Alfred Canton, but not without considerable difficulty, and the fangs presented that rough appearance so indicative of periostitis. Mild astringents were prescribed for the eye, and soon after I lost sight of the patient for a time.

On the 6th June, 1850, she again applied to me, on account of the *stillicidium lachrymarum*, which had recommenced. No alteration in the cheek was apparent, with the exception perhaps of a somewhat darker hue of the integuments. She stated, that with trifling exceptions, she had been free from pain, and that the trickling of the tears had only returned quite recently; it subsided in a fortnight under mild astringents.

She again called upon me on the 4th of last February. A decided increase of the depression was now visible; the whole anterior wall of the maxillary sinus seemed to have sunk, causing considerable deformity. The depth of the depression continued the same, but the superficies was greater; the integuments were rather more adherent to the bone, giving a puckered appearance to the cheek; the nostril was free and unaltered in form, but thinner and less firm than the opposite, as if slightly atrophied; the alveolar process retained its figure. She informed me that she had enjoyed the best of health during the past twelve months, and had nothing to complain of, except an occasional weeping of the eye. Her present condition is that above-described.



REMARKS. Until the middle of the seventeenth century, when the maxillary sinus was first fully described by our countryman, Nathaniel Highmore,¹ little was known of this osseous cavity, and less of the diseases to which it is subject. Since that time, however, able writers and good observers have not been wanting, and Bordenave,² Runge,³ Jourdain,⁴ Desault,⁵ Deschamps,⁶ Weinhold,⁷ and Gensoul,⁸ have left on record much

¹ Nathaniel Highmore died March 1684, aged 71.

² BORDENAVE, M. Précis d'Observations sur les Maladies du Sinus Maxillaire, Mem. de l'Acad. Roy. de Chir., tom. xii and xiii.

³ RUNGE, I. H. De Morbis præcipuis Sinuum Ossis Frontis et Maxillæ Superioris, etc., 1750. Haller, Disp. Chir., tom. i.

⁴ JOURDAIN. Traité des Dépôts dans le Sinus Maxillaire, etc., 1760. Also, Traité des Maladies de la Bouche.

⁵ DESAULT. Remarques et Observations sur les Maladies du Sinus Maxillaire. Œuvres Chirur. par Bichat.

⁶ DESCHAMPS, J. L., fils. Traité des Maladies des Fosses Nazaes et de leur Sinus. 1804.

⁷ WEINHOLD, C. A. Ideen über die abnormen Metamorphosen des Highmorshöle. 1810. Von den Krankheiten der Gesichtsknochen und ihrer Schleimhäute. 1818.

⁸ GENSOUL. Lettre Chirurgicale sur quelques maladies graves du Sinus Maxillaire, etc. 1833.

valuable information on the subject of diseases of the antrum; I have not, however, succeeded in finding in the works of those authors, or elsewhere, a satisfactory description of the affection under which my patient labours. The only observation, indeed, directly bearing on the point, with which I am acquainted, is in Otto's *Compendium of Pathological Anatomy*.¹ "The maxillary sinus," says he, "is either entirely wanting, or very small, according to the imperfect development of the bones; still, however, although these are perfect, the cavities may be much diminished, or even entirely destroyed by great contraction of the bones." And in a note he adds: "I at least have seen it in several cases."

It is far from easy to trace or to offer a satisfactory explanation of the changes which have taken place in the case under consideration; they partake perhaps most of the character of atrophy, as if some check had been given to the due nutrition of the parts, or to the deposition of new matter, in place of that removed in the ordinary course of life. Though the effects produced by the irritation of decayed teeth are usually the very opposite to that here presented to our notice, yet the distinct evidence of irritation borne by the diseased condition of the teeth extracted must not be lost sight of, and, in the absence of any more definite exciting cause, may possibly have originated the peculiar morbid action which has been set up; but that such an amount of alteration should have taken place without pain, and with such trifling inconvenience, is truly remarkable. It must be distinctly borne in mind that there was no sinking in of the alveolar process; *that* stood out in bold relief in consequence of the depression above, so that the diminution of the cheek was quite independent of any contraction arising from loss of teeth.

The patient was seen by Mr. Fergusson on the 28th of March, 1849, and he favoured me with the following note.

"MY DEAR SIR,—This is a curious case; I never saw one like it. I am disposed to think that contraction of the antrum is going on, and that the anterior wall is drawing inwards so as to cause the alteration in the symmetry of the face. I cannot suggest anything.

"Yours very faithfully, WM. FERGUSSON."

Mr. Stanley and Mr. Edwin Saunders have also been kind enough to make a very careful examination of the woman's face; and the former gentleman stated to me, that neither in the numerous museums which he had inspected, nor in the course of his very extensive researches with reference to diseases of bones, had he met with a similar case.

[POSTSCRIPT. During the discussion which followed the reading of this paper, it was suggested by Mr. Edwin Canton, that the condition of the face might have resulted from the development of a tumour from the floor of the antrum, adherent to the anterior wall; the growth of this being arrested, and a curative process set up, it would, as it shrank, draw the anterior wall after it. Mr. Chippendale thought it might have arisen from the outlet of the antrum having been so stopped as to render the cavity air-tight, so that the pressure of the external atmosphere caused collapse of the bones. Mr. Pilcher mentioned instances in which he had seen appearances similar to those described follow a congenital want of symmetry, and also a case of a vascular tumour, which springing from the antrum, had caused absorption of the anterior wall, and when compressed, gave rise to the appearance of a depression in the cheek. Lastly, it was suggested, that some disease may have attacked the superior maxillary nerve, or certain of its branches, and that the atrophied condition of the parts was the result.]

19, Berkeley Square, March 1851.

¹ OTTO, A. W. *A Compendium of Human and Comparative Pathological Anatomy*. Translated by J. F. South. 1831.