CASE
OF
EXCISION
OF
THE ENTIRE LOWER JAW;
WITH OBSERVATIONS.

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THE following singular example of disease presented itself in a patient under my care in the St. Mary-le-bone Infirmary during the last year; and as it is, in some particulars, without a parallel in the records of surgery, or, as far as I am able to learn, in the museums of morbid anatomy, I trust the brief narration of its circumstances may not be unacceptable to the Society.

Maria Pitchford, who was in her 20th year at the time of her admission into the Infirmary, gave the following history of the progress of her complaint. At the age of fourteen, as nearly as she could recollect, she became affected with severe pain, which was attributed to rheumatism, of the right side of the face, affecting all the teeth on that side, and depriv-

ing her of rest and of the power of mastication. The pain shortly afterwards extended to the other side also; but even then, according to the account given of herself by the patient, there existed neither swelling nor redness of the parts. In the course of a few months, however, the lower part of the face was observed to increase in size, a change which gave her no uneasiness, as the pain and inability to masticate were diminished in proportion as it advanced.

The patient continued for several years, during this stage of her complaint, to follow her ordinary employment, that of a household servant, until she was compelled to abandon it by a fresh accession of pain, accompanied by inflammation, which she ascribed to having taken cold. Previously to this attack the lower part of the face had become greatly increased in size, but was hard and insensible; its condition, however, now became materially altered, it was red, painful, acutely sensible to the slightest pressure, and throbbled severely. Matter at length formed, and discharged itself at many apertures, to the partial relief of the sufferings of the patient.

Such had been her condition during many months when she came under my care early in the last year. The case then presented the appearance of necrosis in the advanced stage; there were several sinuses opening around the chin, discharging tolerably healthy pus, the dead bone was evidently encased in a deposit of recent formation, which, at that time, there was no ground for supposing to be dead also. No treatment seemed then to be required, beyond the ordinary atten-

tion to the patient's general health, while nature should be occupied with the curative process of separation. After a time, however, finding that no change seemed to be going on, I deemed it expedient to explore the condition of the bone by enlarging the aperture of one of the sinuses, when the cause of the tardy advance of the cure became apparent, the entire case of new bone being found to be dead, and to have separated in a great measure from the periosteum, which membrane was manifestly in a diseased condition.

The removal of the bone by artificial means being now the only course to be pursued, I determined upon the operation without any longer delay; and that no larger wound might be inflicted than was absolutely requisite, I resolved to divide the bone into three portions.

The patient being laid upon her back as nearly in the horizontal position as the feeling of suffocation would permit, an incision was made along the basis of the jaw from a short distance in front of the right masseter muscle, to the corresponding point on the left side, in order to avoid the facial arteries, and to include the orifices of two of the principal sinuses. The bone thus exposed, was divided, by a saw and cutting forceps, as near as possible to the angles of the wound, and the insulated portion being removed, the wound was lightly dressed. On the following day, the portion remaining on the right side, which had somewhat descended from the loss of the support of the central part, was removed without difficulty.

The patient experienced much relief from these operations, and the suppuration diminished greatly. After an interval of three weeks I proceeded to remove the remaining segment, which adhered rather more firmly, but by means of some careful manipulation, was separated without materially enlarging the wound.

As might have been expected, from the long continuance of the disease, and the consequent separation of the parts, little hæmorrhage followed these several operations; in each of them great care was taken to avoid opening the mouth by cutting through the lining membrane, and the teeth were, when practicable, left in the gum, in the hope that when consolidation should take place, they might be found useful. The wound healed without difficulty, and the patient was discharged in a few weeks, to follow her employment.

I have seen her frequently since her removal from the infirmary: the last time, three days ago. She is able to masticate solid food by the aid of the tongue, which rubs the morsel against the upper teeth; but as there is no reproduction of bone, the lower teeth are almost useless, for though they are firmly retained in their situation by some solid structure of new production, the consistence of that support has not been sufficient to resist the contraction resulting from the healing of the wound; consequently the circumference of the arc formed by the lower teeth is so much reduced in extent, as no longer to correspond with that of the upper.

The face is less deformed than might have been

anticipated after the removal of so considerable a part of its skeleton, and the deformity seems to be diminishing by the depression of the chin, attributable, perhaps to the continual action of the mylo-hyoideus, genio-hyoideus, and other muscles of the larynx.

From the above history there can, I think, be no doubt that the disease was of very long standing, or that it had, in the first instance, the ordinary characters of necrosis. The anomalous position of the teeth of the permanent series* obviously indicates the existence of diseased action prior to the æra of the permanent dentition, the deciduous teeth, as far as can be learned from the present appearance of the specimen, being quite regular and natural.

The occurrence of severe pain about the 18th year, with the subsequent enlargement and suppuration of the part, points out no less clearly the æra of the destruction of the vitality of the *new* bone, which having been laid down in the usual manner as a case surrounding the old, and originally destined to supply its place, seems to have participated, at this period, in the destructive process.

That accidents analogous to that above related do not more frequently occur in cases of necrosis, especially in a bone exposed to such constant motion as the jaw, is attributable probably to the circumstance that the epiphyses forming the joints are very rarely involved in the disease. In ordinary cases, when the shaft of a bone perishes, the epiphyses are as firmly held together by the new bone enclosing

* See Plate VI. at the end of the Volume.

the sequestrum, as they had originally been by the shaft of the old. The diseased parts are maintained in a state of rest, undisturbed by the motions of the joints at either extremity, until Nature's processes are completed, and the sequestrum is finally absorbed, expelled, or extracted by art.

While the case of Maria Pitchford was under treatment there were also in the Infirmary two other instances of necrosis of the jaw, in which the affection was, as usual, limited. In one of these the coronoid process, as far as the junction of the ramus with the basis of the jaw, in the other the alveoli of five teeth, with a part of the basis of the bone, were alone affected; and both these segments readily separated and were taken away through the mouth; the restoration in both instances being complete, and the process of mastication having in neither been interrupted during the progress of the cure. Such would, probably, have been the case in the instance which forms the subject of the present communication, but for the circumstance of the articular extremities of the bone having been involved in the destructive process.

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