from that in which the affection is symmetrical, diffused, and in greater or less degree universal. He repeated an assertion which he had made, he said, many years ago, that all the main facts which are here as regards the development and evolution of zoster are here also as regards morphea. He held that it was certainly located in, and in all probability produced through, nerves. Its remarkable differences from zoster were its slowness of evolution and its long persistence; taken together with the fact, it was not at all uncommon to find it affecting several parts of the body or limbs at the same time. He believed that its earliest manifestation was always in the form of a cluster of spots, and that the large patches often seen at a later stage were always due to a confluence of these. He drew attention to the circumstance that fascia, muscles, and bones were not unfrequently affected together with the skin, whilst comparatively little loss of sensation attended the stages. He thought it highly probable that the vaso-motor filaments, distributed in conjunction with those for motion and sensation, were the parts chiefly affected. The remarkable defects in the subsequent nutrition and growth of the parts affected were illustrated by photographs and drawings. Respecting the condition known as hemi-atrophy of the face, it was contended that it was always the consequence of morphea affecting the fifth nerve; and that it was not strictly an atrophy, but an arrest of development, to be explained by the fact that the disease had occurred in early life before the parts had attained their full growth. A number of portraits were shown to illustrate the remarkable similarity of appearance in different examples of this singular condition.

Some remarks next followed on the general principles which should guide us in respect to whether any given disease was of neurotic origin or otherwise, and the need for increased caution in suggesting such origin was strongly enforced. Diseases of the skin directly due to nerves should, it was contended, always display certain definite features as regards the distribution of their patches. These patches ought always to be racemose or corymbiform. The coalescence of such spots might produce a long oval patch, but such patch ought always to be more or less irregular at its edge, and would almost always be attended also by outlines. No eruption produced directly by nerves could possibly assume a rounded form. The terms areate and circumscribed could never be applicable to disorders of nutrition located by the filaments of nerves. Under this rule it was held that such diseases as alopecia areata and leucoderma were certainly not of neurotic origin. A second rule was that disorders originated by nerves never spread serpiginously—that is, they do not creep at their edges by infection of adjacent parts, as lupus, psoriasis, and leucoderma, with many others, so conspicuously do. On account of the slowness of its evolution and the difficulty in making sure in its early stages of its precise limits, mistakes had occurred in respect to scleroderma on this point, and in not a few cases it had been asserted to spread at its edge. That in a general way such tendency to spread was conspicuously absent there could not be the slightest doubt.

Hebra's observation as to the occasional corymbiform arrangement of the pustules of small-pox was next adverted to, and with it were mentioned the disease described by Dr. Duhring under the name of "dermatitis herpetiformis," and certain forms of lichen ruber and of some syphilides, which may also assume the corymbiform arrangement. It was admitted to be possible that in many diseases not primarily affecting the nervous system, a tendency to peripheral neuritis might exist, which would explain the peculiar arrangement of the foci of inflammation in the skin.

The question was next asked whether any disease produced by nerves could be arranged in lines or streaks, and, in reference to this, the very remarkable conditions presented in congenital ichthyosis in streaks were discussed. Although these streaks had been assumed to be neurotic, there were, it was remarked, great difficulties in accepting such a theory. The streaks often did not follow the course of any known nerves, nor was it easily comprehensible that the transit of a nerve trunk deeply placed under the skin should evoke any phenomena along its course. It was admitted that the explanation of these congenital streaked eruptions was extremely difficult. Their arrangement on the walls of the chest and abdomen were often so extremely like that of zoster, that Mr. Hutchinson said he had himself many years ago tendered the crude suggestion that they might be due to intra-uterine herpes.

At the conclusion of the address a number of drawings were exhibited illustrating various points which had been adverted to. With them was shown a very remarkable and, it was believed, unique skull in which all the bones on one side of the head show exostoses with other evidence of overgrowth, of which on the opposite side there is not the slightest trace. In this specimen the right half of the jaw, as well as the bones of the skull, are affected. The state of hyperostosis ending precisely at the symphysis of this remarkable unilateral asymmetry, it was suggested that two explanations were alone possible: either that the disturbances of nutrition were located by the distribution of the fifth nerve, or that they were due to some influence exerted probably during fetal development. Of the latter nothing was known as to its precise nature, and the former appeared the most probable. A contrast was suggested between the condition of unilateral overgrowth exhibited in this skull and the cases of unilateral undergrowth in the so-called hemiatrophy of the face.

ON THE REMOVAL BY OPERATION OF NASO-PHARYNGEAL TUMOURS.¹

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THE principal object of this paper is to describe a method of operating which was successfully carried out in three cases of naso-pharyngeal tumour recently under my care. After a study of the several methods suggested and practised by Maune, Nélaton, Whateley, Maisonneuve, Langenbeck, Chassaignac, Ollier, Roux, Huguier, Cheever, Croft, and other surgeons, I believe that my procedure, although not original in some of its details, is in its entirety new. It is true that such growths have been reached through the palate by Nélaton and others, but not in the simple way presently to be described. As far as I am aware, my operations have demonstrated for the first time the fact that when the alveolar margin and palatal portions of the upper jaw have been divided along their centre from before backwards, and the bony septum of the nose cut through, the anterior nares having first been exposed by Rougé's plan, the two upper jaws can be separated to the extent of from half an inch to one inch, so as to give access to the posterior nares and base of the skull.

It is freely admitted that a naso-pharyngeal growth may be successfully removed by other "than a cutting operation, and there are a sufficient number of recorded cases to prove this; but there is a very general agreement that in the case of the majority of these tumours some cutting procedure is necessary in order to expose and obtain access to the site of their origin, so that they may be thoroughly removed, and also in order better to control the bleeding which is often profuse during the separation of their attachments to the periosteum and bone. Naso-pharyngeal tumours have been removed by the cold snare, by the galvanic wire, cautery, or éraseur, by evulsion with forceps, by scraping with the sharp spoon, by ligature, and by means of electrolysis; but recent opinion would seem to favour the use of the cold snare or galvanic wire when the case is suitable for a non-cutting operation. Even with improved instruments the success of these two plans in completely removing the growth must be doubtful, owing to the difficulty of acting upon its connexion to the bone, and I am therefore inclined to think that these two procedures might be made more certain if the site of the growth was first exposed by such an operation, as I suggest in this paper, so as to allow the wire to be accurately adjusted, and the tumour removed close to the bone. I have upon several occasions removed naso-pharyngeal tumours by evulsion with strong forceps passed through the anterior nares, the forceps being guided by two fingers of the left hand introduced through the mouth behind the soft palate; but the difficulty of separating completely the attachments of the growths in this way, and the serious bleeding which accompanies the operation, have convinced me that, unless in the case of a small or narrow pedunculated growth, such a procedure is not advisable.

¹ Read before the Edinburgh Medico-Chirurgical Society.

The steps of my operation are as follows. 1. The exposure of the anterior nares by freely dividing the mucus membrane connecting the upper lip and upper jaws, according to the plan of Rougé. 2. The division of the bony septum of the nose along its attachment to the jaw. 3. Incising the soft parts along the middle line of the hard palate, and then sawing through the alveolar margin of the upper jaw and through the entire hard palate along the same line. The soft palate may or may not require division in its middle line. The necessity for this depends upon the size and attachments of the growth. In one of my cases I did not divide it; in the other two I did. 4. The forcible separation of the two jaws, and the introduction through the gap of the finger, periosteal scraper, or other similar instrument, with the view of separating the *secondary* connexions of the growth to surrounding parts. 5. The removal of the growth from its primary site of origin by forceps, sharp spoon, cold snare, or galvanic wire. In all my cases I used strong forceps, assisted by a periosteal elevator and a sharp spoon. 6. When the tumour has been removed, the introduction of some form of antiseptic plug. I generally use a plug of lint soaked in carbolic acid and well dusted with iodoform. 7. The jaws are now brought together again, and secured by one wire suture through the alveolar margin of the bone, and two or more horsehair sutures through the soft parts of the palate wound.

In all three cases the patients were thoroughly anaesthetised, and during the operation the head was placed in a dependent position, resting over the edge of the operating table, as referred to by me in a paper in THE LANCET of Nov. 8th, 1879. In Case 2, preliminary tracheotomy was required because the patient was unable to respire properly when lying upon his back, owing to the pressure of the tumour upon the larynx; but in the other two cases the operation was completed without any difficulty as regards the respiration or flow of blood into the air-passages. Although advocating this special method in cases which demand some cutting operation, I by no means condemn all other plans of procedure, for I believe with Sands that in cases of sarcoma, or in cases in which the attachments of the growth are extensive, the excision of the whole or of a portion of the upper jaw will give the best and most certain result.

In concluding these remarks, I would state what I consider to be the advantages of my method. 1. It is a simple procedure, and if the growth can be removed by its aid no deformity results. 2. Should it be found that the growth cannot be properly exposed and removed in this way, the proceeding forms one usual stage of a more severe operation—namely, the removal of the upper jaw itself,—and therefore it assists and does not interfere with further operative measures. 3. From my experience of operations for the removal of naso-pharyngeal growths, I have a strong opinion that the central section, as advised, is accompanied by less bleeding than most of the other cutting operations practised.

CASE 1.—J. N.—, aged nineteen, a strong healthy young man, was admitted into the Royal Infirmary under my care at the beginning of October, 1887. For some months he had been suffering from obstruction in the nasal passages and from occasional attacks of bleeding from the nose, and a few weeks before admission an attempt had been made to remove a growth in the posterior nares with the cold snare, but without success. An examination disclosed a firm tumour, the size of a small orange, in the naso-pharyngeal region; it had a firm attachment to the bone forming the roof of the posterior nares, and was growing downwards, bulging forwards the soft palate. The case was one in which I hoped to remove the tumour by evulsion with forceps, having first performed Rougé's procedure, and on Oct. 24th I put the patient under the influence of chloroform, introduced a strong mouth-gag, and, having exposed the anterior nares by dividing the mucous membrane, I passed a pair of strong forceps through the right anterior nostril, and with the aid of two fingers of my left hand behind the soft palate endeavoured to seize and tear away the growth. The attachments were so strong that I found it impossible to separate them completely, and during these attempts the bleeding was most serious. Feeling it necessary to complete the operation without delay, I at once sawed through the alveolar margin of the upper jaw and the hard palate along their middle line, having first divided the soft parts in the same direction, and then found, somewhat to my surprise, that the two upper jaws could be separated to the extent of nearly one inch. Through this gap I passed the forceps, rapidly tore away

the tumour, plugged the cavity, and brought together the halves of the jaw. By this time the patient was almost pulseless, and he remained so until evening, when, as there were no signs of rallying, he was transfused about 10 P.M. This was followed by a marked improvement, and he quickly recovered his strength, and was dismissed cured on Nov. 15th. The plugs were removed two days after the operation. In this case the soft palate was not divided. The structure of the growth was that of a fibroma. The patient returned to report himself six months after the operation. He was then in good health and had no trouble in his naso-pharynx. I have tried to trace this patient so as to learn his present condition; but on writing to his old address I found that he had left, and his place of abode was not known.

CASE 2.—A young man aged twenty, when seen by me, was a patient in the Jefferson Medical College Hospital, Philadelphia, and he was suffering from a large growth in the naso-pharyngeal region. The tumour was not so firm to feel as in the first case, but it was larger, had a broad attachment to the base of the skull, and was very adherent to the soft palate, which was bulged forward to a considerable extent. The patient's respiration was beginning to be affected by the pressure of the tumour, which was diagnosed and proved afterwards to be a sarcoma. The surgical staff of the hospital very courteously asked me, as a visitor to their country, to operate upon the case, and this I did in the presence of many distinguished American and other surgeons upon Sept. 22nd, 1888. Preliminary tracheotomy and the introduction of a short tracheal tube were required, as the patient's respiration was much interfered with by the pressure of the growth during the administration of ether. Rougé's separation of the lip and nose was then performed, the bony septum of the nose nipped across from before backwards, the alveolar margin of the jaw and the hard and soft palates divided in the middle line, the upper jaws separated, and the growth seized with forceps and torn away from its attachments. Very little bleeding took place as compared with other operations for the removal of such tumours, and, the cavity having been plugged with antiseptic gauze, the halves of the jaw were brought together; the tracheotomy tube was removed the same evening, and the patient made a good recovery and left the hospital well. My most recent note of the case in a letter from Professor Gross is that the disease had returned shortly after he left the hospital. In any similar case I would in future prefer to excise one or both upper jaws, so as to ensure the most perfect removal of the disease.

CASE 3.—R. R.—, a fairly healthy boy, aged fourteen, was placed under my care by my colleague, Dr. McBride, and was admitted into my wards on Oct. 30th, 1888. Several months before his admission his father noticed that the respiration through the nose was difficult, and in the month of April last he had a severe bleeding from his nose and throat. After this repeated bleedings took place, and an attempt was made to remove a growth through the right nostril. When admitted it was noticed that the nasal breathing was very much obstructed, and that when sleeping he snored loudly. The presence of a naso-pharyngeal growth was easily determined. The tumour was the size of a mandarin orange, was firm to the feel, was broad-based, and had a close attachment to the bones of the naso-pharynx, especially to the upper wall of the posterior nares. The soft palate was bulged forwards, and the tumour was felt to be adherent to it. On November 7th last, chloroform having been given, the attachments of the growth were exposed as in the two former cases. It was found that the body of the tumour was adherent to the soft palate and surrounding structures; but these connexions having been forcibly detached with the finger, it was possible to draw out the whole bulk of the tumour through the gap between the separated jaws, leaving only the primary attachment to the bone and periosteum to be dealt with. The whole tumour was now removed by grasping its neck with strong forceps and tearing it away from its attachment. The bleeding was not excessive, and the patient left the operating table in good condition. As in the former operations, the cavity was plugged, and the two jaws and palate brought together and held in position by means of sutures. The plug was removed upon the following day, and the patient's recovery was thorough and excellent. He left the hospital on Dec. 17th. He was carefully examined on the 11th of this month, and no trace of any growth could be discovered. His nasal passages were quite free.

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