

This matter needs further study, and, unfortunately, the cases are too rare to allow any one observer to have the opportunity to make an extensive study of them. It behoves, then, those seeing such cases to report them fully.

## REPORT OF TWO CASES OPERATED ON FOR DEFORMITY OF THE NOSE.<sup>1</sup>

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THE first case which I shall report is interesting, more perhaps as a curiosity than because it illustrates any particular class of cases. The patient, Mr. P., was referred to me last April by Dr. F. W. Thompson of Fitchburg for the correction of a nasal deformity. He was an electric car conductor, 31 years of age. The deformity



FIG. 1.—Case I (before operation).

followed an injury caused by a fall on the nose when he was a boy. The appearance of his nose was such as to be very noticeable. This condition was especially trying to him, as his occupation made it necessary for him to be seen by a great many people every day, and exposed him to the insulting remarks of thoughtless boys. This sketch (Fig. 1) gives a very correct idea of his appearance before the operation. It was drawn by Dr. H. P. Mosher (to whom I here desire to express my thanks) from a photograph taken by him at the time, but which, owing to the darkness of the day, did not come out satisfactorily. The plaster cast also shows the shape and appearance of the nose. On examination

<sup>1</sup> Read before the Surgical Section of the Suffolk District Medical Society, Dec. 4, 1901.

this appearance was found to be due to an overgrowth forward of the triangular cartilage of the septum, drawing up the tip of the nose and giving an irregular knob-like appearance to the organ. This appearance was accentuated by rather a low bridge, and the irregularity was increased by a bending of the redundant cartilage on itself to the right. Internally the septum was deviated to the left, but not enough to be obstructive.

The operation was a comparatively simple one. The patient was etherized and placed sitting up in a chair. The nasal vestibule was thoroughly washed with Seiler's solution. The nasal mucous membrane in the left nostril close to the septum and below the deformity was cut through with a small bistoury, and, by means of a blunt dissector introduced through this opening, the skin was freed over the prominent portion of the nose. Then a pair of slightly curved scissors were introduced and the redundant cartilage removed piecemeal until the shape of the nose seemed about as it should be. A gauze wick was placed in the

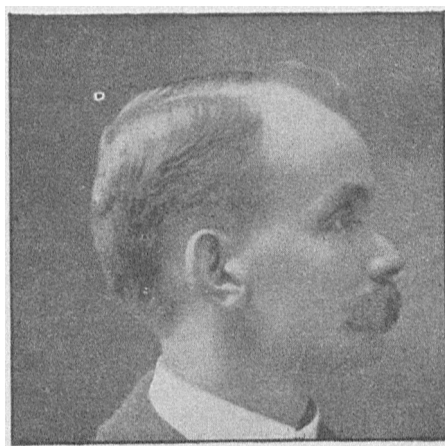


FIG. 2.—Case I (after operation).

left nostril and a gauze pad with cardboard and adhesive plaster over the nose to hold everything in good position. There was a certain amount of swelling which gradually disappeared. The gauze wick and external support were removed on the second day and the patient made an uneventful recovery. As you can see by the plaster cast and photograph, taken, one over a month and the latter several months after the operation, the opening of the nostrils is now on a horizontal plane and the general appearance of the nose is not remarkable in any way (Fig. 2).

My second case shows some of the difficulties which one may encounter in attempting to correct old displacements or fractures of the nasal bones. The patient, Miss A., aged 25, came to the Massachusetts General Hospital last September in Dr. Mixer's service. Knowing that I was interested in such cases he kindly referred her to me. The history is briefly as follows: Two years ago she fell from her bicycle, cutting her

nose badly and dislocating it to the left. The wound was dressed, but apparently nothing was done to replace the nose in its proper position. A year ago she fell down an embankment, striking on her face and, she thinks, bending the nose more to the left.

When I saw her the nose presented the appearance which is shown very well in the photographs and in the cast of the nose. Besides a marked angular lateral displacement there was also, in profile, a rather sharp angle between the bony and cartilaginous portions of the nose, in other words, an exaggerated Roman nose. Internally the right nostril was much narrowed, so that breathing through it was impeded. The object of the operation was to straighten these angles as much as possible and to bring the nose into the median line. To accomplish these objects I proposed to perform the Goodale operation for exaggerated Roman nose, which I have used successfully in another case.<sup>2</sup>

The patient was etherized and placed in the sitting posture. A pair of stout narrow-bladed curved scissors were introduced into the left nostril and the point of one blade pushed through the cartilaginous septum close to its anterior border and about  $2\frac{1}{2}$  cm. from the tip of the nose. The cartilaginous and osseous septum was then cut through, following the outline of the deformity and close to its articulation, with the nasal bones to a point just under the articulation of the nasal bones with the frontal. With a pair of straight scissors a small piece of the septum under the angular portion of the nose was cut off so as to leave the anterior border of the septum straight. Next, a short-bladed saw was introduced into the left nostril and the left nasal bone sawed through as nearly as possible at and parallel with its suture with the nasal process of the superior maxilla. This was done until the saw could just be felt under the skin. The same process was gone through on the right side. Here, however, it was found that the bone, probably as a result of the two injuries, was four or five times as thick as that of the left side and very hard. This made the process of sawing through much more difficult. By pressing on the sides of the nasal bones I was now able to break their slight remaining attachments to the superior maxillæ. The nasal bones were attached only to the frontal. Now, using the padded handle of a tongue depressor as a pleximeter to prevent bruising the skin, I gave a quick light blow over the nasal bones. Nothing resulted. I repeated this procedure three or four times, slightly increasing the force of the blow, until I heard a crack. To my disappointment I found that the left nasal bone had fractured about a cm. below the nasofrontal suture, and the lower portion of it had thus become separated from the right nasal bone, which was still, apparently, firmly united to the frontal. The failure of this step of the operation was no doubt due to the extreme thick-

ness of the right nasal bone, although it is possible that I did not cut through the septum sufficiently far up and that the portion of the osseous septum thus left intact prevented the nasal bones coming away from the frontal as they should have. If this was so it goes to emphasize the importance of making sure, if possible, that the septum is cut through as high up as the artic-

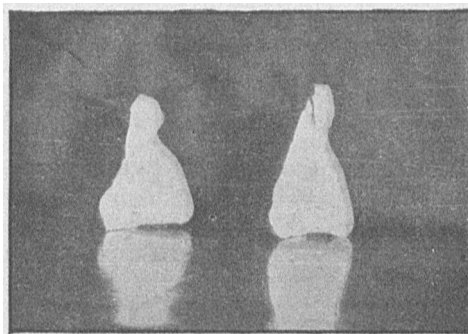


FIG. 3.—Plaster casts of Case II (before and after operation).

ulation with the frontal bone. In spite of this failure, however, it was found that the nasal bones could now be slid down inside the nasal processes of the superior maxillæ, getting rid almost entirely of the anteroposterior angular prominence and bringing the nose practically into the median line. The operation was hurried somewhat on account of the poor condition of the patient's pulse almost from the start and the shallow character of the respiration. The support which I applied to the nose is a very simple one, and in my experience much superior to any form of splint. It was applied as follows: A strip of

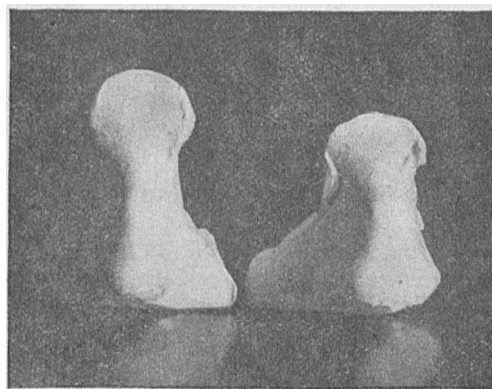


FIG. 4.—Plaster casts of Case II (after and before operation).

adhesive plaster about an inch wide was attached from under the right ear over the right cheek, and then exerting a certain amount of traction over a pad of gauze suitably placed on the nose, the strip of plaster ending on the left cheek just under the left eye. Then another strip of plaster was applied exactly over the first, but exerting a little more traction and carried way around

<sup>2</sup> An Operation for Exaggerated Roman Nose. *Boston Medical and Surgical Journal*, May 30, 1901.

the face and under the left ear. It is surprising how much pressure may be obtained in this way. This support and traction was kept up for nearly two weeks, except when removed for observation. Then, owing to the appearance of the skin under the pad, which had been slightly bruised during the operation, it was deemed best to leave it off. Owing to the result of the constant steady traction the position of the nose was now very good, there being almost no anteroposterior angle, and on a front view the nose appearing almost in the median line. As a result of this enforced premature removal of the support the nose is not quite as good as when it was removed, although the improvement over the previous condition is marked. Another result of the operation is that breathing through the right nostril is now free (Figs. 3 and 4).

The points to be emphasized in this case are: The extreme thickness of the right nasal bone, the failure of the nasal bones to separate from the frontal at the suture, and the inability, owing to the condition of the skin, to keep on support as long as seemed desirable.

#### CONTRIBUTION TO THE STUDY OF SPINAL FRACTURE WITH SPECIAL REFERENCE TO THE QUESTION OF OPERATIVE INTERFERENCE.<sup>1</sup>

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SPINAL operation has proved comparatively free from the drawbacks and dangers attending intracranial surgery. This fact, together with the serious, painful and usually fatal nature of the lesion under consideration, renders the question pertinent whether it is not wise to make early operation the common custom, in the hope, at least, of relieving pain and of improving the course of the average case.

Certain symptoms have been deemed sufficient to show that the cord is irrevocably crushed, namely, relaxed paralysis with anesthesia, loss of reflexes, with loss of control of bladder and rectum, but cases have been reported in which considerable restoration of function has followed such symptoms. It is only through their persistence that complete crush is established. If we wait to determine this point valuable time may be lost, as secondary degenerations of the cord appear shortly, and early operation in all doubtful cases will not only accomplish all that late operation will do for these cases, but it will be performed to better advantage before reparative processes with adhesions and callus have appeared.

The tables of Thorburn, based on clinical rather than on anatomical or experimental considerations, have stood the test of practical application. If the nerve roots are involved, the anesthesia will reach the level of the lesion. A case in Dr. Conant's service (operated on by Dr. Balch) was

anesthetic to the groin on the right (lumbar distribution), but on the left the sacral distribution only was involved. After operation the level of anesthesia on the right was lowered to the sacral distribution on account of relief of pressure from the nerve roots. Speedy relief of pain and some improvement in motion followed operation. The former alone would justify operative interference.

In a case seen with Drs. Hinsdale and Washburn the classical symptoms of complete crush were present, together with fracture of all four extremities, of the sternum, the clavicle and the nose. Removal of the first three dorsal arches by Dr. Cabot was followed by considerable return of sensation and motion, the former almost completely restored, the latter steadily improving, up to the time of publication.

Symptoms resembling fracture may result from distortion in the cervical region with replacement. This lesion generally produces more or less persistent symptoms in the arms due to nerve root injury.

The local signs of spinal fracture are often insufficient to establish the diagnosis. If irregularities appear, especially if accompanied by infiltration of overlying tissues, tenderness on pressure, and local pain becoming extreme when the patient is rolled, such signs are valuable aids.

Irregularities without symptoms of paralysis are not necessarily of import. Such irregularities are common in health, particularly prominence of one or more lower dorsal vertebræ on bending slightly forward. Such prominence may be mistaken for fracture in a patient suffering from strain of the back with its accompanying pain. Various curves were shown illustrating more or less marked irregularities in normal backs.

The fatality of fracture without operation is about 80%. This fatality is claimed to have been reduced by operation to 50%, but these statistics are not trustworthy on account of failure to report unsuccessful cases. In 34 collected cases avoiding this error the fatality was 70%.

The operation is not especially dangerous; it does not leave the vertebral column materially weakened. Even though future statistics may show that the fatality is not materially lowered by operation, removal of pain and improvement in symptoms would justify an operation of so little seriousness compared to the gravity of the condition for which it is attempted.

Moribund condition, high and rapidly rising temperature, and extreme displacement of vertebræ are contra-indications to operation.

#### CONCLUSIONS.

(1) There are no symptoms which establish (otherwise than through their persistence) irreparable crush of the cord.

(2) While total relaxed paralysis, anesthesia of abrupt demarcation, total loss of reflexes, retention, priapism and tympanitis, if persistent, point to complete and incurable transverse lesion, the onset of such symptoms does not preclude a certain degree at least of restoration of function.

<sup>1</sup> Read before the Boston Society for Psychiatry and Neurology Nov. 21, 1901; New York Neurological Society, Oct. 1, 1901.