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I.—PERIOSTEAL REPRODUCTION OF THE CONDYLES OF THE HUMERUS AFTER EXCISION OF THE ELBOW-JOINT.

II.—PERIOSTEUM OF THE FOREHEAD TRANSPLANTED IN A RHINO-PLASTIC OPERATION. NO NEW BONE FORMED. NECROSIS OF THE EXPOSED SKULL.

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[Communicated for the Boston Medical and Surgical Journal.]

CASE I.—Sept. 14th, 1857. O. P. F., aged 29, married, clerk. Is a light-haired, unhealthy-looking man. Family liable to scrofulous affections. Five years ago, while at work hoisting goods, he struck his right elbow a violent blow, causing great pain. The elbow swelled, and he was laid up a fortnight. Since that time, whenever he struck this joint, it would swell up in a similar manner. Last July, a fistulous opening appeared a little outside of the olecranon, and a week or two later a second one broke out about two inches below the first. These discharge a thin, purulent fluid. A probe passes under the skin from one opening to the other. No diseased bone is felt.

From this date until March 27th, 1858, the record states that various sinuses formed and were laid open.

March 27th.—Etherized. Dr. Bigelow made an incision over the olecranon, and found in the bone a cavity with carious walls, the size of an almond. The diseased parts were removed by the gouge.

28th.—Very little pain. Doing well.

April 21st.—Abscesses continue to form.

June 19th.—*Operation by Dr. Bigelow.* Patient etherized. Joint opened by a semicircular incision, and the ulnar nerve sought and turned aside. The ends of all the bones were found to be much diseased, and about an inch of the ulna and an inch of the humerus were removed. The head of the radius was also excised. But little blood was lost. No arteries tied. The periosteum being firmly attached to the coral-like surface of the bone, was torn out from the

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inequalities with strong forceps. Wound brought together by sutures. Flaps riddled by old fistulous openings. Arm placed on an angular splint, with water dressing. Evening.—Very little pain. Skin warm. Pulse 100. No hæmorrhage.

22d.—Edge of wound looks sloughy. Comfortable. Stitches removed.

26th.—Pulse good. General condition as good as before operation. Edges of wound have opened and sloughed. Sinuses clean. No pain. Porter.

August 17th.—Wounds closing slowly. Discharge much diminished. Appetite good. Walks out every day.

22d.—Wounds flabby. No dead bone felt. Strap.

Sept. 5th.—General health is very good. Ulcers have contracted somewhat. Advised to go into the country, and is discharged.

Nov. 11th, 1858.—Since leaving the Hospital has been in the country. Has had more or less cough. Looks as well as when last seen. About a month after his discharge, an abscess opened, two inches below head of radius. Now, integument around elbow is red and inflamed. There are five fistulous openings which connect with one another and centre in a cavity formed by the removal of the bones. No dead bone can be felt. The discharge is very slight. No pain. Still keeps on the angular splint. Has made up his mind to have the arm off, and enters for the purpose of operation. House diet. Ale. Poultice.

16th.—Has more or less cough. Cod-liver oil, 3 ij, thrice daily.

20th.—*Operation.* Patient was etherized, and the arm amputated just above the elbow.

Feb. 28th, 1859.—Discharged, well.

It has lately been ascertained that this patient, who manifested indications of tubercular disease of left lung before his arm was removed, died of phthisis about Dec. 1st, 1859, the disease not having been arrested by the amputation.

The interesting points in this case of excision of the elbow-joint are :—

1. The reproduction of the condyles of the humerus by the periosteum, which was torn from the interstices of the bone of both the original condyles. The horns which were reproduced for the insertion of the extensors and supinators and of the flexors are conical processes, each somewhat more than half an inch in length, and regularly curved forwards and inwards, as seen in the accompanying wood-cut from a photograph of the bone. The rugous surface of the excised condyles is also well shown.*

2. The unfavorable issue of this case corroborates what seems to be the fact, viz., that while the elbow is a most favorable joint for excision in cases of recent injury and in healthy subjects, yet when

* For a somewhat similar specimen, from the practice of Prof. Syme, of Edinburgh, the reader is referred to the *Lancet*, March 3, 1855.

this articulation which is so near the centre of the circulation, and which should therefore be well nourished, and prompt to take on reparative processes, becomes carious from disease, it implies a general feebleness of constitution, which calls rather for amputation than excision.

CASE II.—Dec. 1st, 1866. A. B., aged 22. This young woman, at the age of ten years, was attacked with scrofulous lupus, which resulted in the destruction of the principal part of the nose, including the bones and as far down as the alæ. A hole of the size of a silver dime, surrounded with cicatricial tissue, exposes the nasal cavity. The margin of the alæ remains half an inch wide and retracted into the cavity of the nose, especially upon the right side.

15th.—*Operation by Dr. Bigelow.* The alæ were dissected from their adhesions within the nasal cavity, and being cut square, left a margin a quarter of an inch in width. A flap was taken from the forehead, in the usual way, and brought into place so as to form a nose and unite at its lower margin, with that of the alæ and septum. In dissecting up the flap, the periosteum to which it was attached was carefully removed from the skull, in the hope that it would form a new bridge.

16th.—Wound looking well.

19th.—Every other suture removed.

25th.—It is now evident that the exposed bone is becoming necrosed.

March 2d, 1867.—The margins of the wound upon the forehead have shown little tendency to approximate over the exposed surface

of bone, the whole of which is dead, and is becoming gradually elastic and detached from the subjacent tissue. To-day (eleven weeks after the operation), forceps were introduced at the edge of the wound and the entire bony surface lifted off in two fragments, being itself a scale of almost papery thinness, and uncovering a healthy granulating surface.

31st.—Patient was etherized, the pedicle divided, and the eyebrow restored to its normal position.

April 30th.—Wound of the forehead completely healed.

May 15th.—No bone can be detected in the new nose.

Remarks.—Having, in four previous instances, had occasion to make an entire new nose from the forehead, and having been on the whole dissatisfied, owing to the tendency of the new nose to flatten, with the want of resemblance in the result of my own efforts to the model nose usually depicted in standard works on surgery as the result of the rhinoplastic operation, I determined in this instance to invoke the aid of the periosteum in the formation of a new bridge. This had already been done abroad; with what result, I have been unable to learn. I had, however, been previously deterred from the experiment, in apprehension of the very injury to the bone, which has been mentioned as having occurred in the present case. The necrosis of the whole surface of the exposed bone, in connection with the entire absence of osseous formation in the new nose five months after the operation, is not favorable, so far as the evidence of a single case may be relied on, to a repetition of this experiment.

EAR DOUCHE—A NEW INSTRUMENT FOR CLEANSING THE EAR.

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THE importance of frequent and thorough cleansing of the external auditory meatus in cases of acute and chronic otorrhœa is manifest. Its necessity is pointed out by all writers on diseases of the ear. There are probably few general practitioners who have not had occasion to prescribe, especially for children, syringing the meatus with simple or medicated water. This is commonly done by means of a small syringe, made of pewter, glass, or gutta-percha. All such syringes, however well made, and however easily used by physicians, are not well adapted for the use of patients. They get out of order easily. They hold only an ounce of water, and often less, and consequently do not cleanse the meatus by a continued stream of water, but by a succession of jets. The piston rarely moves with ease, and the force requisite to start it on its course, often propels it, when started, with undue violence, and so throws the water from the syringe violently into the ear. The orifice of the ear is not infrequently irri-