

In 45 cases treated by excision there was a total mortality of 35.5 per cent. from causes connected with the disease; 13.4 per cent. from some form of tubercular disease; the average duration of treatment was $1\frac{3}{4}$ years; the average shortening amounted to $2\frac{3}{4}$ in., while the movement at the hip was free, limited, or *nil* in the proportion of 11, 6, and 3. In 260 cases of suppuration treated without excision, there was a mortality of 30.4 per cent. counted as above, 9.2 per cent. from tubercular disease, an average period of treatment of $2\frac{1}{2}$ years, with an average shortening in 33 cases of 1.6 in., and in 35 of the cases 30 walked with slight or no limp, 5 with considerable limp; the movement was free, limited, or *nil* in the proportion of 5, $4\frac{1}{2}$, and 3. In 124 cases without suppuration the total mortality was 10.5 per cent., 7 per cent. from tubercular disease, and the movement was free, limited, or *nil* in the proportion of 5, 3, 3; in 17 of these cases the average shortening was 1.4 in., and in 1 there was apparent lengthening of $\frac{3}{4}$ in.; of 22 of them 19 walked well, and 3 limped. Sequestra were found in 59 per cent. of the specimens of the disease examined. Of a total of 203 cases of excision collected from various sources 13.7 per cent. died directly from the operation.

The pathological indications for the operation are stated to be necrosis of head of femur, or formation of large sequestra, extensive caries of the bones, intra-pelvic abscess from acetabular disease, and long-continued suppuration. The clinical indications are—rapid onset of suppuration, with severe local and constitutional symptoms, general albuminoid disease and long-continued suppuration in spite of other treatment. Pelvic disease is no bar to the operation. The mortality from tubercular meningitis, in cases of excision, was 4.4 per cent., in other cases of suppuration 6.1 per cent., in cases without suppuration 5.6 per cent. Of 429 cases 9 per cent. died from some form of tubercular disease. The limb is more generally less useful after excision than other modes of careful treatment. Only the diseased bone should be removed, and the great trochanter only when diseased or when there is extensive disease of the pelvis. While the occurrence of necrosis is shown to be proportionately very large, clinical records show that, in many instances, these sequestra are small, and either come away by themselves or are very easily removed in general operations.

Transplantation of Bone.

At the last meeting of the Royal Society, Dr. MacEwen presented a paper on a case in which he had successfully transplanted bone. The patient was a child four years of age, who had lost two-thirds of the shaft of the humerus by necrosis fifteen months previously, and in whom no osseous repair had occurred. The limb was of course useless. Dr. MacEwen proceeded first to make a groove in the soft tissues in the position of the bone, relying for this on his anatomical knowledge, and then placed in this groove small fragments of wedges of bone removed from other patients for curved tibiae. The result has been that a good new bone has been formed, the new portion has united firmly to the upper epiphysis and lower part of the original shaft, and the bone is only half an inch shorter than its fellow. Proper care was taken throughout to have the parts perfectly aseptic. Great interest attaches to this case, which is the first of the kind recorded, and Dr. MacEwen is entitled to warm praise for devising and carrying to such a successful issue the many details necessarily involved in its management. Happily Nature is usually so skilful in the repair of lost parts of bones, that it is not often the surgeon is called upon to make good the loss; but much as there is to marvel at the way in which Nature thus generally plays her part, cases now and then occur in which she fails to supply the lacking portion. Many interesting problems arise in reviewing the facts of this case. The first is,

What was the original condition of the limb? There was evidently a local inability to produce a new bone, and we may presume that in the primary inflammation the periosteum, or at least the deeper active portion of it around the sequestrum, had been destroyed, and the lymph poured out from the surrounding tissues lacked any "ossific stimulus." This the bone-grafts supplied. But how are we to explain the formation of new bone of the proper length and form? We cannot, of course, attribute this power to the transplanted tissue; it might have seemed probable if Dr. MacEwen had used pieces of the opposite humerus, or even any humerus, for his purpose; but we find that pieces of tibia were successful. If not the transplanted bone, are we to say that the ends of the original bone exerted a moulding influence on the ossifying material, or was it the effect of the surrounding tissues? A question naturally arises whether transplantation of bone is essentially better than transplantation of periosteum alone. It is easy to see that when whole pieces of bone are used, the periosteum over them will be probably more active than when stripped off and used alone, as in stripping off it is liable to injury. It would also be exceedingly interesting to know what actually became of the transplanted bone. Did the medullary cells and soft parts live, and the fragments become actually incorporated with the new bone; or was lymph effused around and into the bone, which was then gradually softened down and absorbed, or cast away in secretion? The problem is the same as has been raised about organizing blood-clot. A case published in our columns in 1878 by Dr. MacEwen may be taken as throwing some light on the question; there, in a case of compound fracture of the leg, a fragment two inches and a half long was completely detached, except by a very few slender bridges of periosteum, but being replaced and carefully treated, it was seen after four weeks to become injected with blood, and granulations rose from its surface. Here the whole process was closely watched from day to day, and the large fragment was seen to become firmly incorporated again with the rest of the bone. Other cases, individually perhaps less conclusive, point to the same conclusion; we may refer to one contributed to our columns in 1877 by Mr. Porteous. As so frequently happens in such cases, while Dr. MacEwen has been carrying the case to a successful issue in Glasgow, a similar proceeding had been determined upon by Mr. C. Macnamara of the Westminster Hospital. On Wednesday last we saw him plant several small fragments of bone taken from an amputated metatarsus in a groove prepared in the leg of a little child from whom several months ago he had removed the greater part of the shaft of the tibia. This operation was determined upon and discussed before the class of students more than a month ago, before Dr. MacEwen's case was made public, but it was postponed until the patient had had a few weeks' change of air in the country. Mr. Macnamara remarked, in reference to it, that he had been greatly struck with what he had seen in the practice of Mr. Thompson, who has removed teeth and replaced them several hours later, and they have adhered firmly in a few days; this, with other facts, had encouraged him in his endeavour to make a new bone in the case in point.—*Lancet*, May 28, 1881.

OPHTHALMOLOGY AND OTOTOLOGY.

New Method of Blepharoplasty.

DR. LANDOLT (*Archives d'Ophthalmologie*, Dec. 1880) describes a new operation of blepharoplasty, from which he has obtained good results. For this operation, the eyelids may be considered as formed of two layers superposed, the external consisting of skin and orbicularis, with the eyelashes, the internal of