TREATMENT OF RECENT TRANSVERSE FRACTURE OF THE PATELLA.

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SINCE my previous paper on this subject appeared in the BRITISH MEDICAL JOURNAL of April 30th, 1892, in which I advocated passing a subcutaneous ligature round the broken fragments of the patella in order to secure osseous union—a method which has since been successfully adopted by several hospital surgeons—recent practice has induced me to modify my first method, and I find that by passing the ligature over the anterior portion of the patella instead of round it the two ends of the bone can be approximated and held in position with less traction.

We find that in transverse fracture of the patella the upper portion of the bone sinks down and the lower edge of the upper fragment is thrown forwards, giving a direction forwards and downwards to the whole upper fragment, instead of directly downwards. This, no doubt, is due to the posterior parts of the quadriceps tendon being closely bound to the deep structures of the femur. The fractured edges are, therefore, more widely separated anteriorly than posteriorly, so that we get the appearance represented in Fig. 1. To overcome this difficulty, namely, the absolute approximation of the broken edges of the bone, anteriorly as well as posteriorly, Mr. Barker following the lead of Kocher of Berne, and Lagneure of France, boldly enters the joint and passes a silver wire round the patella from before backwards, and leaves this permanent suture playing between

Fig. 1.

the cartilaginous surfaces of the patella and femur with, as he says, no serious consequences. As equally good results can be obtained by keeping outside the joint, and thus avoiding the grave risks which seem to me to be inseparable from Mr. Barker's operation, I certainly prefer doing so. Acting on this principle I have latterly passed a handled needle, armed with a strong waxed and carbolised silk ligature, deeply through the quadriceps tendon, as close to the upper margin of the patella as possible, making the first puncture one quarter of an inch from the border of the tendon and bringing it out at about one inch from the point of entrance; the needle is then withdrawn, leaving in the ligature *in situ*.

The needle being again threaded with one end of the same ligature is re-entered at the same skin puncture, and passed subcutaneously from above directly downwards over the anterior portion of both fragments, and brought out just below the inferior border of the lower portion of the broken bone. The unthreaded needle is now passed from the opposite side deeply through the ligamentum patellæ at a short distance from its lateral border, and brought out at a little distance from the opposite border through the same skin puncture that is already occupied by one end of the silk ligature, with which it is now threaded, as in Fig. 2, and withdrawn. The needle, being now unarmed, is threaded with the free end of the silk ligature, which was in the first instance passed through the quadriceps tendon, and re-inserted through the same skin puncture, is passed subcutaneously, as on the opposite side, from above downwards, and brought out over the ligamentum patellæ at the same puncture already occupied with the other end of the ligature. The broken fragments are then approximated by an assistant, and well rubbed together until crepitus is obtained so as to make certain that nothing, such as portions of tissue, etc., is intervening between the broken ends of the bone. The ends of the ligature are then firmly tied in a reef knot, as in Fig. 3, thus retaining the fracture in accurate apposition. A

Fig. 3.

back splint with a few weeks' rest is now all that is necessary for perfect osseous union.

NATIONAL HEALTH SOCIETY.—The arrangements for the autumn work of this society are now complete, and the programme comprises lectures on many subjects to meet the requirements of various audiences. The special training lectures for ladies who wish to qualify as teachers of the laws of health, etc., under the County Council scheme of technical education, as factory inspectors, lady lecturers, etc., will commence on Tuesday, October 6th, at 2.30 P.M., when Dr. J. Edward Squire will open the course with a series of lectures on Elementary Anatomy and Physiology. Lectures on First Aid, Nursing, Sanitation, and Hygiene will be included in the training courses, and students are required to pass an examination on all these subjects before receiving the diploma of the society. In addition to this course, Mrs. Clare Goslett will commence a course of four lectures on Friday, October 30th, while other lectures and classes will be held from time to time. All particulars can be obtained from the Secretary, 53, Berners Street, W.