

consisting of two incisions, one on either side, but without the transverse incision; the patella and ligaments are dissected off, and pushed on one side; by this operation you save the ligamentum patellæ, which some operators think of importance. I prefer the second, you get a better view of the joint; the saving of the ligamentum patellæ is not of so much importance as imagined, you get all the structures bound down in the course of healing, and all the parts are consolidated. What parts of importance have you about the joint? The popliteal vessels and nerves. You divide the ligaments in this operation, and the state of the parts, whether the articular surface of the bones are diseased, and also the cartilages, synovial membranes, and other soft structures of the joint. You next proceed to excise the diseased parts. You saw off the diseased articular surfaces, the lower end of the femur first to the extent of an inch or an inch and a half; you next bend the joint forcibly, and either clear the head of the tibia or remove a mere slice with the saw which in general is sufficient. The lower end of the femur is more diseased than the tibia, at least I have found it so. In the tibia the encrusting cartilage occupies a flat surface, in the femur it extends over the irregular condyles. Having removed these, you look to the state of the patella. In the earlier operations the patella was removed, but it was found inconvenient; if, however, it is not diseased, it is as well to leave it, as it tends materially to strengthen the joint. You next approximate the ends of the bones and shave off the flap, to suit the articulation; you put the limb in a slight splint, and use light dressing for a few days, and ultimately, if everything goes on well, you get ankylosis of the joint.

I shall now say a few words as to the operation itself. The object is to save the sound parts of the limb at the expense of the diseased, to save the foot and leg. If too much disease exists however, or if the leg and foot are atrophied, it will be of no avail; if there is a chance of leaving a tolerable limb you may have recourse to excision. There are two points of considerable importance, which perhaps have not been dwelt upon as fully as they deserve. The first is, what is the mortality as compared with amputation of the thigh—the comparative rate of mortality of amputation of the thigh with that of excision? Your alternative is always between amputation and excision, and hence, in dealing with the general question of excision, you inquire what is the mortality from each. If we look at the statistics so far as they go, the operation has been done 33 times (from Mr. Butcher's excellent paper 31 times.) Out of the 33, 27 have recovered, or are in a fair way of recovery, and only five deaths have occurred out of that number. Five out of 33 is a tolerably successful result, being 1 in 6½ cases. What is that compared with amputation for disease? Malgaigne states in 153 cases of amputation for disease 92 died, equal to 60 per cent. In this hospital I collected the statistics of amputation of the thigh for disease, out of 34 cases, nearly the same number as the joints, there were seven deaths; seven deaths against five from excision of knee-joint. Seven out of 34 cases is an extremely favourable rate of mortality, the balance lies in favour of excision; that is, it is less fatal than amputation of the thigh. Now the next question is, what is the result of the operation,—what condition do you leave the patient in? The result varies in different cases. Mr.