A few notes on a case of complicated fracture of the femur of unusual type

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June, 1916

JH (æt. 33) admitted to Southland Hospital, at 4 am, on 31 July, 1915.

While riding a motor-cycle, he collided with a car about 2 hours previously. He was thrown clear of the car, but does not remember how he fell.

Examination: A small wound was seen over the left patella, and the joint was tremendously swollen. The patella was fractured transversely, with about one inch separation of the fragments. The skin wound was found to communicate with the joint through the patellar gap. There was also what was apparently a simple fracture of the shaft of the left femur just above its middle.

Operation: A few hours later, I performed an open operation on the patellar fracture by means of a curved incision below the bone. Skin and subcutaneous tissues were reflected exposing the bone, each half of which was found to be very much comminuted. The knee joint was full of blood clot and a considerable quantity of road metal. This was carefully removed, and two small soft rubber tubes put in to drain the joint on either side posteriorly through counter openings.

The patellar fragments were next approximated. Wire sutures would not hold in the bone, owing to extensive comminution, but the fragments were eventually brought together by wire structures through the aponeurosis. The lateral expansions were then repaired, and the wound closed anteriorly.

The limb was subsequently put up in a Hodgen's splint for convenience of dressing.

4 August, 1915: Tubes removed. Small amount of seropurulent discharge from compounding wound over patella.

10 August, 1915: Tube sinuses and compounding wound were still discharging slightly. Bismuth paste was injected into all three, resulting in complete and permanent closure.

Femur: Radiogram on 5 August 1915, revealed an extraordinary condition at the femoral fracture. There was a transverse fracture of the shaft just above its middle, and a splitting of the upper fragment as high as the lesser trohanter.

The lower fragment was slightly impacted into the other. The question of open replacement was considered, and decided against.

From this condition, I concluded that the accident had thrown him with his full weight on the left knee, which was flexed, causing the compound comminuted patella-fracture. Continuation of the violence had caused a transverse fracture of the femoral shaft, and a further continuation had impacted the lower into the upper fragment, splitting the latter as indicated.

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Owing to the femoral condition, it was not possible to start passive movements of the knee joint as early as I should have liked.

5 September 1915: Splint removed. Massage and passive movements commenced.

11 September 1915: Radiogram showed great amount of callus formation between and around femoral fragments.

13 October 1915: Patient left hospital.

Condition: Leg-half-inch shortening. Knee-flexion to right angle possible. Walks easily with support of one stick. Large amount of callus round femoral fracture. Some oedema of leg after walking.

3 January 1916: Patient reports that he is now following his ordinary occupation of farm labourer, and complains of no disability beyond a little loss of flexibility of the knee.

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