THE CANADA LANCET.

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE, CRITICISM AND NEWS.

VOL. XIX. TORONTO, JAN., 1887. No. 5.

Original Communications.

FRACTURES OF THE THIGH.*

BY A. B. ATHERTON, M.D., TORONTO.

Fractures of the femur are naturally divided into those of the neck, shaft and lower end.

Those of the neck are sub-divided into intra-capsular and extra-capsular fractures, according as they take place within or outside the capsular ligament of the hip-joint. Many fractures in this locality, however, partake more or less of both characters.

Intra-capsular fracture generally occurs in persons over fifty years of age, and is much more frequent in females than males. The thinning of the osseous tissue, the increased deposit of fat in the cancellar tissue and the more horizontal position which the neck of the bone assumes in old age all assist in making fractures of the neck more common in the later periods of life.

The trochanter major is occasionally separated from the rest of the bone, either as an independent lesion or in conjunction with fracture of the neck.

When the fracture is an impacted one crepitus is of course absent, while all the other symptoms are present in a less marked degree than in cases of complete fracture. In such fractures it will not always be an easy matter to recognise them from a severe contusion of the hip, for it is not justifiable to exercise any violent force in order to get crepitus, lest the impacted fragments be separated and thereby the treatment and result be rendered less successful. All cases of doubt should therefore be handled with care from the first.

I may here remark that I think the best way of getting at the true length of a limb is by measuring from the anterior superior spinous process of the ilium to the tip of the inner malleolus. Some prefer to start from the umbilicus, but it seems to me that this point would be more apt to vary somewhat with change of position, and be therefore not so reliable for purposes of measurement.

Some considerable discussion has at different times taken place as to the cause of the very general occurrence of eversion in fractures of the neck of the femur. In cases of complete fracture it is probable that the foot and leg falls outwards by their own weight, just as they naturally do when one is lying on his back while the muscles are relaxed, as in sleep. It has been thought also that the glutei muscles are influential in producing this effect. Bigelow has demonstrated that the cortical bony tissue is more strongly developed on the anterior side of the neck than on the posterior, and he contends that this is the reason why in impacted fractures the latter part yields more than the former and consequently gives rise to more or less eversion of the leg. On examination of the bone we also observe that the posterior part of the neck is hollowed out more than the anterior, which is especially marked at its upper part where the first force of a blow upon the trochanter major would be felt. This we think would tend to the more ready yielding of the posterior side of the neck, even though the tissue were of the same density throughout.

The accidents most likely to be mistaken for fracture of the neck of the thigh bone are (1) some fractures of the pelvis; (2) dislocations of the bone; and (3) severe contusions of the hip. It is not always easy to diagnose between fractures of the neck and those of the acetabulum, but as the treatment would be the same it is not so important to make the distinction. Recent dislocation is usually known by the greater fixation of the head of the bone. When, in cases of impacted fracture, there is much swelling of the soft parts, especially if the patient be a fat subject, it will often tax our powers of diagnosis to the utmost to decide as to the existence of the fracture. As before stated, however, we must when in doubt give the patient the benefit of that doubt and treat the case as one of fracture. There are two methods of assisting us in the diagnosis of fractures of the neck of the femur which are often found serviceable. One is the observation of Nélaton, that the

*Read before the Ont. Medical Association, June, 1886.