

retract, abduct and rotate the thigh-bone outwards. Again when the head of the bone rests upon the pubis, the plane of the trochanter is but slightly elevated, some fibres of these muscles will be in a state of contraction, while others will be more or less relaxed. The fibres arising from the os coccygis and sacrum will now roll the thigh-bone outwards and retract it backwards. These facts are clear indications of the intense interest with which we must regard the action of these muscles, whenever the coxo-femoral articulation is the seat of injury.

The next set of muscles are those which flex the thigh upon the body, adduct the limbs and turn the toe outwards, these are the *psoas magnus*, *iliacus internus*, and *pectinalis*. The *psoas magnus* is a muscle that comes from the anterior part of the spinal column, and descends downwards passing over the edge of the pelvis, to be inserted into the femur; it serves with the *iliacus internus* to balance the muscles on the back part of the hip, and to preserve the equilibrium of the body. This long round muscle fills up the space upon the side of the spine, it comes from under the *ligamentum arquatum* of the diaphragm, arising from each of the lumbar vertebrae in succession—the transverse process as well as the bodies—it then descends until it reaches the sacro-iliac symphysis, and is then united to the internal iliac muscle, descending with it under Poupard's ligament, to be inserted into the lesser trochanter, and root of that process. The union of this muscle with *iliacus internus*, and its insertion into the same spot, gives them the same mode of action, and has led many anatomists to consider them as part of one and the same muscle. The *iliacus internus* lies upon the concavity of the ilium. It arises from the inner lip of the crest of the ilium, the transverse process of the last lumbar vertebra, adhering to the concavity of the ilium, as far as the brim of the pelvis, and to the fore-part of the bone under the spinous process—radiating it is gathered together and forms a tendon which slides over the os pubis as over a pulley; as soon as it has passed under Pompart's legament, its tendon united with the tendon of the *psoas magnus* bends obliquely round and downwards to be inserted into the trochanter minor of the os femoris. The action of these two powerful muscles, is to flex the thigh upon the trunk, and by the obliquity of their insertion, to rotate the bone outwards, as well as to adduct the limbs—but should the thigh be the fixed point, they will serve to bring the trunk forward and to bend it downwards. When the neck of the thigh bone has been broken, and is retracted upwards by the *glutei*, the action of these muscles serve to adduct and rotate the thigh, and to turn the toe outwards,—the action of these muscles is much more marked, when the fracture occurs without the capsular ligament and the bone rests high upon the ilium. In dislocation upwards upon the dorsum of the ilium, the distance between the edge of the pubis