

eventuate in exfoliation, because the nutrition of the bone depends only in part on the periosteum. It would seem therefore that even apparently trifling contusions at the epiphysis should be viewed with deference and treated with becoming care. But if they give rise to subperiosteal supuration, there is in two ways imminent danger for the joint:—first, by the matter spreading below the periosteum and forcing its way into the articular cavity; and secondly, by instituting necrobiosis of the epiphysis in part or *in toto*. The latter mode is obviously the more frequent. The destruction or detachment of the entire epiphysis by this process is very rare,—more frequently, one of the condyles is implicated, enlarged, osteoporotic, and very tender. From thence the disease radiates to the remaining structures, and thus the joint becomes compromised. I have but lately exhibited to the New York Pathological Society, a specimen illustrating this process. A small sequestrum in the internal condyle of the femur was evidently the proximate cause of the extensive trouble to the joint, amounting to an almost complete obliteration of its cavity by adhesive synovitis.

Primary diseases of the epiphysis are not of frequent occurrence, and least of all osteomyelitis.

The process of gradual destruction is most simplified at the hip-joint, and its varied phases may best be studied there. A few anatomical remarks will be necessary. The ligamentum teres must be accepted as a ligament in an anatomical point of view, on account of its being endowed with a considerable complement of fibrous structure. Besides this, however, areolar tissue, and fat enter largely into its composition, encompassing the nerves and vessels passing to, and from the head of the femur. No anatomist has as yet been able to demonstrate the office of the round ligament. The head of the femur fits so accurately in the acetabulum that it is held there by atmospheric pressure, or, as others think, by cohesion. This bone may dislocate in any direction without the ligamentum teres being ruptured; it consequently places no restraint upon the movements of the thigh bone. Some instances are known where the joints lacked it altogether, without marked impediments resulting. Again it has been ruptured in the act of violent dislocation and the returned head of the thigh bone moved almost to the same perfection as before. Thus it would appear that this ligament bears no part in the action of the hip point. Another office must have been assigned to it. To all appearance it acts as the protector of those nerves and vessels which form the nutritive apparatus of the head of the femur. Without this protection the nutrition of the femoral epiphysis could not be effected. Collectively I look upon the ligamentum teres therefore as the essential nutritive appendix of the