

positions persisted in for a long time after the fever disappeared accounted for the ankylosis in both hips in one of the cases quoted by Prof. Keen. This was removed by forcible flexion under ether, so that in a similar case early passive motion is indicated.

The non-articular form affects the large joints, the elbow, shoulder, ankle, knee, but especially the hip. (*Cases 2 and 3.*) Early pain and incapacity, swelling, heat, and redness, although the swelling may be concealed or masked by the large muscles about the hip, and by contractions. These contractions interest us most as we have to deal with the deformities, generally after the fever has disappeared some time. The condition here is one of synovitis with consecutive arthritis, but pus is infrequent and fistulous openings rare (Keen). In only one case out of forty-one given by Keen in his second table did suppuration occur, and that was in the knee. Dunin's case, also quoted, in which there were abscesses of the buttock and hip, many furuncles, and suppurative otitis media, with arthritis of the right elbow and shoulder, but these joints did not suppurate. In this class of cases useful joints generally result. (*Cases 2 and 3.*)

As to frequency in typhoid of these joint troubles; it is not great. In the literature of the last fifty years, Keen has collected in all eighty-four (84) cases involving the joints in which, he says, spontaneous dislocation occurred in forty-three (43). Forty (40) in the hip; twice (2) in the shoulder, and once (1) in the knee. So that fully one-half of all cases of typhoid arthritis were followed by spontaneous dislocation, nearly all of which were of the hip joint.

Dislocation is a most important feature in this form,—it is similar to that found in exanthematic arthritis, Charcot's joint, etc. The cause of dislocation is a subacute synovitis distending the capsule, which reinforced by the Y ligament anteriorly, gives way, or stretches posteriorly, then stretching of the ligaments from this same cause occurs, and filtering of the fluid between the articular surface. After the subsidence of the inflammation on account of the looseness of the capsule, and, perhaps, of the thickening of the gland at the bottom of the acetabulum, the muscles by contraction will dislocate the joint, or it may be turned out by any small force, as turning in bed. Iliac is the usual form, but two obturator dislocations have been reported. As to sex:—of thirty-five (35) cases, nineteen (19) were males and sixteen (16) females. Age, thirty-two (32) out of thirty-five (35) occurred before the twentieth (20th) year. There is a very marked analogy to coxalgia and diagnosis is important. The treatment of these cases is simple, if early, but late is sometimes very troublesome. In seventeen (17) cases reduced, thirteen (13) were by manipulation, two (2) by both. In eleven (11) cases reduction was not effected. If one finds pain in the joints in a case of typhoid one must use every precaution. Rest! Position in abduction and external rotation, sand bags and mild extension are recommended.