

joint it is satisfactory to know that this symptom usually entirely ceases; in fact, all pain usually ceases.

In acute cases, or in the later stages of even mild cases which are unprotected from jar and motion, pain may become very intense.

The pain is usually referred to the inner side of the thigh or the knee, and the pain in the knee is sometimes connected with other symptoms of apparent disease of the knee in such a way as to make diagnosis difficult. In a case lately seen, in addition to pain, the knee became flexed to a right angle, and firmly held in this position by spasm of the muscles, thus diverting attention from the real seat of the disease.

Pain as a symptom is a very uncertain factor,\* and there is no consistent relation between the pain and the position and extent of the disease.

Increased heat, which is so important an aid in diagnosing tubercular disease of more superficial joints, such as the ankle and knee, cannot be easily detected in the hip.

Grating or crepitus, which used to be considered so important as a symptom, is never present in the earlier stages, as we have seen that the disease generally commences in the bony epiphysis of the head of the femur, and at a later stage it can only be appreciated when the patient is under the influence of an anæsthetic.

Swelling may or may not be present. When present, it occurs before and behind the joint, perhaps obliterating the gluteal fold, and in some bad cases the whole thigh may be swollen.

Atrophy is a very common symptom. It appears at an early date, and affects the whole limb. The affected thigh may measure from one-quarter to one inch less than the other, the calf also being smaller.

Fixation of the limb in a position of adduction, abduction, eversion or flexion is another symptom which commonly occurs. This is caused by spasm of the muscles controlling the joint, this spasm being the result of reflex irritation of the nerves supplying them. It is of great importance that these malpositions be recognized and overcome, as the ability of the patient to get around with ease in after-life depends so much on recovery with the limb in a correct position. It is necessary to exercise care in ascertaining this symptom.

Dr. August Schreiber says: "In examining for contracture of the hip, care must be taken that the pelvis is straight and that the lumbar spine rests on the couch."\*

Abscess occurs in a great proportion of cases, especially where no proper fixation is given to the joint. The pus may present itself in any position, even burrowing as far as the popliteal space, or above Poupart's ligament, but most commonly it comes to the surface in front of the sensor vaginal femoris. At present it is not possible to locate the site of the disease by the situation of the abscess.

Shortening is one of the symptoms of hip disease, but it does not occur in the very early stages, or, in fact, until other symptoms make the diagnosis clear.

*Muscular Spasm.* This symptom has been left to the last because it is the earliest, most characteristic and important of them all.

Bradford and Lovett say: "The chief diagnostic sign in hip disease upon which the chief reliance must always be placed, is *the presence of stiffness of the joint or limitation of its proper arc of motion* when the limb is passively manipulated."†

It is of the greatest importance to be able to detect this muscular rigidity, as an early recognition of this symptom gives an opportunity to commence efficient treatment before any destruction of the joint has occurred, and in many cases recovery with almost perfect function of the limb may take place.

Considerable care is required in order to ascertain this symptom in an incipient case. The patient should be stripped and laid on the back of a hard couch or table. In the Hospital for the Ruptured and Crippled, New York, the routine examination of a patient suspected of hip-joint disease was made as follows: The patient being laid on the back as described, the sound leg was gently grasped and put through all the motions of which it was normally capable, flexion, extension, adduction, abduction and rotation. (It is especially important that great gentleness be used in children.)

Next, the diseased limb was put carefully through

\* "General Orthopedics, including Surgical Operations," page 750

† "Orthopedic Surgery," page 278.

\* "Diseases of Children." Ashby and Wright, page 538.