

the same movements, abduction and rotation being done with the thigh flexed at a right angle to the body, and the leg at a right angle to the thigh. Any limitation to the normal range of motion was carefully noted and compared with the opposite side. One of the first motions to be restricted is abduction in this flexed position.

The sound limb was then flexed closely on the abdomen, to fix the pelvis and the suspected limb extended. Any limitation to extension was thus accurately determined, and if present its amount registered by the goniometer.

The circumferences of both limbs at the thigh, knee and calf were then noted, and the length from the anterior superior spine, and the umbilicus to the internal malleolus of each side taken. This was entered with a short history in a book as follows:

Left a u t k c age.

Right a u t k c agf.

"A" was the distance from the anterior superior spine to ankle.

"U" from umbilicus to ankle.

"T" circumference at thigh.

"K" circumference at knee.

"C" circumference at calf.

"Age," angle of greatest possible extension.

"Agf," angle of greatest possible flexion.

The form is filled in with the measurements in each case.

Only by some such methodical examination as this is it possible to detect hip-joint disease in its early stages.

It should be noted that the two symptoms on which so many rely in diagnosing hip disease are very untrustworthy, namely, crepitus and pain in striking the heel suddenly, as crepitus is absent in the early stages, and can at any stage only be got under anæsthesia, and pain in jarring the heel is by no means a constant symptom, even in severe cases.

*Differential Diagnosis.*—No attempt will be made to enter into the question of differential diagnosis, reference must be made to some formal work on the subject for that purpose. If it be found on examining a suspected hip that motion is limited, even ever so slightly, in every direction, it is pretty safe to conclude that hip-joint disease is present, and to give the proper treatment for that disease. If any mistake has been made, no

harm can be done by the rest, fixation or traction which has been given. The only exception to this rule is in hysterical disease of the hip. Here great care is required, but the subject is too large to speak of in this paper.

*Prognosis.*—The prognosis in hip-joint disease is fairly good, if treated early and in a rational manner. C. F. Taylor, of New York, reports ninety-four cases with only three deaths. Gibney, of New York, 288 cases, with a mortality of 12½ per cent. Since 1880, in the Alexandra Hospital, London, in 614 cases there have been thirty-five deaths, being 6 per cent. This is much better than the earlier records, owing no doubt, to improved methods of treatment. A certain amount of stiffness remains in most cured cases, varying from complete ankylosis to a few degrees of limitation, but with careful and long continued, skilful treatment, very good results as regards motion may be hoped for. Shortening results in most cases, the average amount being about two-thirds of an inch in cases treated by conservative methods, viz., by fixation and traction without operation.

*Treatment.*—Under this head no attempt will be made to describe all the different methods of treatment recommended, but just to give clearly and briefly one or two which are simple, practical and comparatively easy of application. In a case where a very early diagnosis has been made, nothing will be found more satisfactory than the application of a plaster of Paris spica, reaching from the axilla to the ankle of the affected leg. The method of applying this is described in a former paper on that subject. This case should be strengthened by two or three strips of soft steel at the flexure of the thigh to prevent its breaking. This is an excellent temporary measure, which, if well applied, will promptly relieve all pain and give time to prepare some appliance for more extended treatment if necessary. In a patient recently seen, kindly referred to me by Dr. Hall, three plaster cases were applied (no case should be left on more than one month) at intervals of a month. The child was eighteen months old, and had suffered acutely for several weeks, although extension by weight and pulley had been applied. In two hours after the plaster was put on the child lost all pain and commenced to play about (and it is perfectly surprising how freely children can get about in these cases), and never complained of any more