DISABILITIES OF HIP-JOINT IN CHILDREN.

by

ARTHUR ROCYN JONES, M.B., B.S. LOND.,
F. R. C. S. Eng.,
SURGEON, ROYAL NATIONAL ORTHOPEDIC HOSPITAL;
ORTHOPEDIC SURGEON, CHILDREN’S CLINIC.

DISABILITIES of the hip-joint may be conveniently divided into two groups: congenital and acquired. Of the former congenital dislocation and coxa vara are probably the commonest, and their similarity in symptoms and signs often present a difficulty in diagnosis.

CONGENITAL DISLOCATION OF THE HIP.

This rarely comes under observation until the child begins to walk, when lameness attracts attention; girls are more often affected than boys, the proportion being nine to one in a series of cases extending over 20 years at the Royal National Orthopedic Hospital. In a bilateral case the lumbar lordosis is greatly increased, and the gait is accompanied by a rolling of the body from side to side. In the unilateral case these characteristics are less marked, the repeated tilting of the body being confined to one side. Movement at the hip is perfectly free and painless, but abduction is limited by the taut adductors. The head of the femur is absent from Scarpa’s triangle, but can be felt on the dorsum illi with the top of the trochanter above Nélaton’s line. If the limb is pulled downwards and the hand then relaxes, the head of the femur telescopes into the buttock.

Another characteristic, also having its origin in the instability of the joint, is Trendelenberg’s sign. If a child stands on one limb the other side of the pelvis is raised, if its corresponding thigh is flexed; but if the hip of the supporting limb is dislocated, the opposite side of the pelvis drops. The presence of all these signs should leave no doubt about the diagnosis. The common error is to mistake the condition for coxa vara and less frequently for infantile paralysis. But the fact that there is no wasting, muscular weakness, or circulatory disturbance present should be enough to exclude palsy. Coxa vara, however, has a distinct resemblance, and it will be well to consider this disability next.

COXA VARA.

Coxa vara is strictly a structural term, and denotes a diminution of the normal angle between the neck and shaft of the femur. It may be congenital or acquired, and unilateral or bilateral. The acquired form is often due to trauma causing either a separation or slipping of the epiphysis or a fracture of the neck with malunion. It is frequently associated with rickets, osteomalacia, and osteomyelitis. In these diseases the femoral neck is softened, and the body-weight is the mechanical factor altering the bony angle. The commonest symptom is lameness dating from birth or following an accident. But this symptom may be gradual in onset and follow repeated minor accidents of apparently little consequence. The joint becomes gradually stiffer and on examination flexion, abduction and internal rotation are particularly limited, and if the disability follows a recent accident muscle spasm may be present. There is some shortening of the limb, and the top of the great trochanter is above Nélaton’s line.

*Abstract of a Post-Graduate Lecture delivered in connexion with the Children’s Clinic, Marylebone-road. (Cases illustrating the various disabilities with the end-results of treatment were shown.)
COXA PLANA (PSEUDO-COXALGIA).

This is another acquired disability of the hip, and is so named from the flattened appearance of the head of the femur. The chief symptom is lameness without definite cause to account for it. Movement at the hip is often free and painless, although sometimes rotation and abduction are limited. There may be little or no shortening of the limb. It is usually unilateral. Legg, who first described the disease in 1910, believes the condition to be due to a traumatic disturbance of the blood supply of the epiphysis. Infective epiphysitis is another theory, staphylococci being found in some reported cases.

TUBERCULOUS HIP.

Tuberculosis of the hip is the remaining disability to be considered, and it is the commonest. Here again an early symptom is lameness with a varying degree of pain at the joint, and often a history of night cries with loss of sleep. On examination the child is wasted, pale, and possibly anxious and fretful about any examination of the hip. This is in strong contrast to the other disabilities already discussed. There is often protective spasm of the muscles about the joint, and movement in all directions is restricted because of this. Or there may be little spasm and hardly any restricted movement; frequently the only resentment occurring when the limb is passively rotated, due to the rubbing of inflamed synovial or bony surfaces against each other. In the more advanced stage, marked wasting of the thigh muscles with flexion and external rotation of the limb, and possibly abscess formation occur, leading ultimately to internal rotation and shortening. But the disease then offers no difficulty in diagnosis.

THE DISABILITIES SUMMARISED.

Taking now these four disabilities of the hip-joint, congenital dislocation and coxa vara resemble each other clinically, and to a less extent so do coxa plana and early tuberculosis. In congenital dislocation of the hip the head of the femur can be felt on the dorsum ili and telescoping is present. Trendelenberg's sign is unreliable; it may be present in both dislocation and severe coxa vara. Traumatic coxa vara presents less difficulty owing to the history of a previously normal hip, whereas dislocation and congenital coxa vara were each noticed as a disability when the child began to walk. A radiograph should always be taken in any disability at the hip-joint. It will often settle the diagnosis beyond all doubt. In congenital dislocation of the hip it will also give some indication of prognosis from the point of view of treatment. The radiograph will show first the extent of the acetabulum, and whether or not after reduction the roof will prove an effective barrier to ensure stability; and, secondly, the amount and nature of the deformity of the head and neck of the femur.

In coxa plana the symptoms are much milder than in tuberculosis. There is none of the anxiety, fretfulness, spasm and wasting of tuberculosis, and manipulation of the joint is more tolerable. The grosser signs of fixed flexion and rotation are entirely absent in coxa plana. The radiograph is conclusive. In coxa plana the epiphysis is flattened and frequently broken into two or three fragments, and in the unilateral case presents a striking contrast to the sound hip. The joint is otherwise well defined. In early tuberculosis there may be no gross bony lesion, but only a cloudiness of the joint and a general lack of definition. This is often attributed to a fault of the radiograph, but a repeated exposure and a comparison with the opposite joint will readily convince one that the radiographic appearances are due to pathological changes in the joint. A further stage in the process will exhibit a small erosion at the surface of the femoral head or the acetabulum or a small cavity in the epiphysis or the femoral neck. Beyond this the radiographic appearances increase gradually through various pathological stages up to complete disorganisation and ankylosis.

CASES FROM WARDS AND OUT-PATIENTS.

BY

J. A. RYLE, M.D. LOND.,
ASSISTANT PHYSICIAN TO GUY'S HOSPITAL.

The two cases to be first described presented themselves at Medical Out-patients on the same morning, both complaining of severe attacks of epigastric pain coming on at varying intervals and for no apparent reason. In both the alternative diagnoses of biliary colic and tabetic crises were discussed, and in one case the latter possibility had already been carefully considered elsewhere. In both, however, there was good reason for reviewing other possibilities.

Case 1.—The patient, a waiter in a café, aged 51, complains of attacks of bad epigastric pain, "drawing" or "gripping" in character, and sometimes referred through to the back. He first experienced these attacks five years ago, and describes them as arriving with varying frequency, sometimes two in a week, sometimes with intervals as long as six months. Latterly they have been more frequent. The pain bears no relationship to meals or any other event in his daily life. It is sometimes accompanied by nausea or vomiting. He has never been jaundiced. He thinks that there has been some loss of weight. Latterly he has also complained of a feeling of great weakness. There is a history of syphilis treated by injections 17 years ago. Two years ago he was investigated at a hospital for nervous diseases and had both the blood and cerebro-spinal fluid examined with a negative result. Radiograms of the stomach, duodenum, and gall-bladder region are reported negative.

Examination of the central nervous system reveals no signs of tabes dorsalis nor are there any signs pointing to organic disease in heart, lungs, or abdomen. The patient looks ill, is hollow-cheeked, and has rather a dingy complexion with profuse freckling. Brownish pigmentation with a freckle-like distribution extends on to the mucosa of
Disabilities of the Hip-joint in Children

Arthur Rocyn Jones

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