**SURGERY.**

**Coxa Var**a: Its Relation to Fractures and Slipped Epiphyses of the Upper Extremity of the Femur (Revue de Chirurgie, November, 1912). Abstract of the proceedings of the French Surgical Congress, held at Paris in October, 1912. Leaders of the discussion—M. Froelich, Nancy, and Kirmisson, Paris.

M. Froelich,—Coxa vara is an affection of the hip characterised by a lesion of the epiphyseal cartilage, during growth, producing a downward sliding of the head of the femur and with well-marked clinical features.

After a historical résumé of the views held on the subject since 1888, when Muller, of Stuttgart, first described the condition, M. Froelich limits his discourse to true static coxa vara, or the coxa vara of adolescence. It is a rare condition, appearing between the ages of 12 and 18, during puberty, and especially found in the male sex (45 cases—39 boys and 9 girls). The condition may be unilateral or bilateral; certain occupations, especially that of tilling the soil, seem to have a bearing on its production.

Clinically its onset is insidious, beginning with occasional pains about the hip or the knee, fleeting pains which disappear with rest, reappear on exertion and are aggravated by the least injury. Locomotion becomes difficult, awkward; fatigue appears soon, certain movements at the hip-joint become limited, and a progressive limp appears. On examination of the patient, standing upright (a tall youth, well built, and with big bones), the affected limb is found adducted, everted, and it may be crossing the sound limb. The limbs are livid in colour and the feet sweat profusely. The great trochanter is more prominent and more highly placed on the affected side. The gluteal fold is lost, and when the patient walks he limps more or less with the dip towards the affected side. When the lesion is bilateral he waddles. When the patient lies down one notes the shortening, 4 to 5 cm., and the amount of external rotation. The faulty attitudes of abduction and eversion can both be exaggerated, whilst abduction and inversion cannot be produced actively or passively. Flexion and extension seem normal, and no pain is produced by the manipulations. One further symptom, when the patient kneels the weak limb crosses behind the sound one. When the condition is bilateral the patient cannot kneel. The chronic evolution of the condition is interrupted by occasional acute exacerbations.

The pathological anatomy of the condition is based on specimens and on radiography. One finds the head of the femur approaching the lesser trochanter while the normal “angle of inclination” (128°) has become a right angle or even an acute angle. The neck presents a forward bulging and can be felt in Scarpa’s triangle. It is further twisted round its own axis as if there had been a movement of hyperextension affecting the limb and the trochanteric portion of the neck, whilst the head remained unmoved in the acetabulum. The upper border of the neck appears lengthened and the lower border shortened. The articular cartilage of the head is crowded on to the neck above, whilst below it tends to disappear. The head tends to become subluxated and the upper part of the neck to form a joint. The epiphyseal line of cartilage is curved, with its convexity towards the acetabulum, and soon loses its continuity. Microscopically, the epiphyseal cartilage is thickened, looks edematous, and is richer in cells than usual and is markedly vascular. The capsule becomes retracted and the ligaments become shortened and thickened. These findings explain the inability to abduct and to invert the limb.

The pathogeny is not yet settled. It seems agreed that it comes about from overburdening, putting too much strain, during puberty, on a weak neck, or an "insufficient" epiphyseal cartilage; but to what is this “insufficiency”
to be attributed? Some attribute it to the physiological changes taking place there with such great activity during puberty. Why, then, do so few cases occur? The same changes are taking place in all.

Sudeck attributes the condition to the lack of development of a crest of bone which normally appears and buttresses up the neck during puberty. M. le Dalmany attributes it to ancestral causes. Others definitely consider the cause pathological. Muller once suggested a late, localised form of rickets; Kocher an osteomalacia of youth. Other suggestions have been atavism, traumatism, lack of some internal secretions, and Froelich first demonstrated staphylococci (albus and aureus) in several cases and put forward the theory of an infection. The fragility of the epiphysis would best accord with this theory.

The prognosis is variable; usually the condition progresses slowly, and after a year or two becomes spontaneously arrested. Definite lesions are present before the cases come under observation. The diagnosis is easy and the x-ray photo. proves the lesion to be in the neck of the bone, and excludes—(1) "Symptomatic" coxa vara; (2) Traumatic coxa vara; (3) Rheumatoid arthritis.

The treatment aims at preventing the increase of the deformity. Orthopedic.—Rest in bed; apparatus to take the weight off the joint; massage; electricity; manipulation. Operation.—Subtrochanteric oblique osteotomy is the simplest and safest procedure.

"Symptomatic" coxa vara is then shortly discussed. These cases are essentially lesions of the trochanter and affect the neck only at its junction with the great trochanter. They may be classed as—

1. Congenital, described by Kirmisson.
2. Rachitic.
3. Coxa vara osteomalacia (Hofmeister).
4. Inflammatory—(a) tubercular; (b) osteomyelitis; (c) arthritis deformans; (d) fibrous osteitis (Reklinghausen).
5. Coxa vara from lack of some internal secretion.
6. Those due to a lesion in the central nervous system.
7. Those developing after the reduction of a case of congenital dislocation of the hip.
8. Traumatic.

M. Kirmisson then takes up the discussion on "Traumatic Coxa Vara."

1. It is only in recent years that we have begun to recognise the existence of fractures of the neck of the femur in infancy. We owe the advance to radiography. Their occurrence used to be denied or they were put down as great rarities. Lately numerous cases have been recorded. M. Kirmisson then gave details of five cases, showing that both intra- and extracapsular fractures occurred, and that incomplete fracture, greenstick fracture, and subperiosteal fracture might all be obtained in this region; also impacted fractures.

2. Slipped epiphysis.—The condition cannot occur before the fourth year, when the head becomes osseous. It is commonest during adolescence and usually the result of a blow in the region of the hip. The diagnosis as between fracture of the neck and separation at the epiphyseal line is not easy. Hoffa declares that fracture is the rarer condition. M. Kirmisson does not agree, but thinks the conditions tend to overlap, and all should be considered under the heading of fracture.

Symptomatology of hip traumatisms in infants.—A child can walk very soon after a fracture of the hip; sometimes at once, usually after a few days. Fairly free use of the injured limb is quite compatible with a fracture of the neck of the femur. The traumatism producing the fracture is usually very trivial. The diagnosis and the differential diagnosis is best made by radiography.

In "primary traumatic coxa vara" there is a clear connection between the
injury received and the end result. The fracture has not been set, or there is vicious union, or the case has not been attended to.

Side by side with this case there is, however, another where, after a lesion has been healed and well healed, some softening takes place in the neighbouring bony tissue and leads to a bending of the neck.

In "secondary traumatic coxa vara" the real lesion seems to be in the neck of the femur, and little can yet be said with certainty about it.

_Treatment:_ 1. _Preventive._ In all cases of fracture of the neck of the femur and of slipped epiphyses, after a reduction of the deformity, the parts should be immobilised in plaster, keeping the limb well abducted and inverted. Neglected cases should be similarly treated after the parts have been re-fractured should the case be seen within two months of the accident.

2. _Curative._—Subtrochanteric oblique osteotomy.

An interesting discussion followed, and opinion seemed to be that "essential coxa vara" was a great rarity, that a few cases might be etiologically rickets, but that the great majority were primarily traumatic, usually a partial slipping (of the epiphysis) at the epiphyseal cartilage, though no clear idea was expressed as to the cause of origin of this condition since it came often without a definite traumatism. Cases were reported where a specific fever or an infective lesion had shortly pre-dated the commencement of the trouble.—_W. Rankin._

---

**GYNAECOLOGY AND OBSTETRICS.**

_Strangulation of the Anterior Lip of the Cervix by a Pessary._—Vogt, of Dresden (Zentr. f. Gynäkol., 28th December, 1912) reports a case from the practice of Prochownik, of Hamburg, in which a woman, aged 32, was delivered by forceps, and suffered a severe tear of the cervix. Later, she was treated for a retroversion, and the anterior lip was found projecting like a snout beyond the posterior. She was treated with a pessary, which was cleansed every two months. Suddenly she suffered from hemorrhagic discharges, accompanied by severe pain and some fever. The anterior lip was found strangulated in the lumen of the pessary, which could not be removed till after amputation of the edematous lip of the cervix.

Vogt mentions four similar cases found in the literature of the subject. In a case recorded by Wiener the whole portio vaginalis of the cervix became gangrenous. Vogt next relates a case somewhat similar to that first described, as only the anterior lip was incarcerated. In this case it was removed without amputation; the inner diameter of the pessary was 2 cm.

—_E. H. L. Oliphant._

_Report on the Surgery of the Peritoneum._—Macnaughton-Jones (Dublin Journal of Medical Science, November, 1912) publishes this report, read before the Sixth International Congress of Obstetrics and Gynaecology in Berlin. He had collected information as to methods from seventy-one British operators. Many opinions, of course, were obtained, but there was a general consensus as to postponement of operation in the face of local septic conditions, extreme anemia, and of prolonged hemorrhage; special attention to the state of the mouth, throat, and nose; thorough evacuation of the bowel; and determination of the condition of the urine.

For preliminary treatment, attention is paid to the sterilisation of the vulva and vagina, especially in cases of cancer. The various antisepsics in common use are enumerated, biniode of mercury being the one chiefly used for inside the peritoneum, as also for the operator's hands. For the patient's skin iodine holds first place, though Hastings Tweedy, after sterilisation with ether and biniode in spirit, paints the skin with a saturated spirituous solution of picric acid to cornify the epithelium, and lock the bacteria in the depth of the skin.