



OPZ250 Mesleki Yabancı Dil I

13.hafta



Reference Review And Discussion
On Orthoses

&

Hip: Developmental Hip Dysplasia
Legg-Calve-Perthes

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Reference Review And Discussion On Orthoses



Hip: Developmental Hip Dysplasia

Edward A. Hurvitz MD

Description

Legg-Calve-Perthes disease is an avascular necrosis of the hip in children.

Etiology/Types

- _Temporary loss of blood flow to the femoral head

Epidemiology

- _Children aged 4 to 10
- _Male:female 5:1
- _International incidence 1 in 1200
- _Bilateral in 10% to 12%

Pathogenesis

- _Death and necrosis of femoral head
- _Related to pattern of vascular supply running alongside the femoral neck—can be sensitive to changes in the growth plate and other problems
- _Changes with age, which allows for healing by molding with the femoral head positioned in the acetabulum
- _Inflammation and irritation

Risk Factors

- _Malnutrition
- _Hypercoaguable states
- _Low birthweight
- _Older parents
- _Delayed bone age
- _Does not appear to be genetic

Clinical Features

- _Child walks with a limp
- _Pain in groin, also in thigh and knee
- _Muscle spasm around hip

Natural History

- _Can have complete recovery, especially in younger children
- _May lead to early arthritis and eventual joint replacement

Diagnosis

Differential diagnosis

- _Transient synovitis
- _Hip trauma
- _Joint infection 25
- _Slipped capital femoral epiphysis (generally seen in older children)

History

- _Limp, usually over a few weeks
- _Pain in groin, starts mild over weeks or months
- _Pain in other parts of leg—knee, thigh
- _Often the child does not complain of pain until asked

Exam

- _Pain increases with stressing range of motion (ROM) of the hip
- _ROM of hip decreased
- _Antalgic limp

Pitfalls

- _Missing diagnosis with knee pain presentation

Red Flags

- _Continuing pain and symptoms, or lack of improvement of x-rays, surgical treatment may be indicated

Treatment

Medical

- _Containment—position the hip to help the femoral head recover to as close to normal as possible. The goal is to keep the hip in the acetabulum as much as possible, while still allowing motion, which is needed for cartilage health. The hip should be kept in abduction as much as possible during recovery.
- _Anti-inflammatory medication
- _Traction, including home traction

Exercises

- _ROM
- _Strengthen hip adductors, abductors, and rotators
- _Ambulation training without weightbearing— crutches, wheelchair use—moving back to weight-bearing with healing
- _Therapy can begin immediately after diagnosis

Modalities

- _Hip abduction orthosis, such as a Scottish Rite Orthosis, or similar, can be worn during ambulation
- _Sometimes Petrie casts are used: hold the legs in abduction with a bar worked into the cast at the knees

Injection

- _Botulinum toxin may be useful to reduce adductor spasm and to improve positioning in braces and therapy compliance

Surgical

- _Tendon lengthenings of contracted muscles
- _Femoral or pelvic osteotomy for realignment. Plates and screws are used to hold alignment

Complications

- _Inadequate treatment and/or healing leads to immobility of the hip joint and decreased mobility

Prognosis

- _Most children return to normal activities in 18 months to 2 years
- _Girls usually have more extensive involvement, and can have worse prognosis
- _Problems may develop years later, leading to arthritis and joint replacement