Acetabular Dysplasia

Alternative Names
Hip, Dislocation of, Congenital
Dislocation of Hip, Congenital
Congenital Dysplasia of the Hip
CDH
Hip Dysplasia, Congenital, Nonsyndromic
Developmental Dysplasia of Hip
DDH

Record Category
Disease phenotype

WHO-ICD
Congenital malformations, deformations and chromosomal abnormalities > Congenital malformations and deformations of the musculoskeletal system

Incidence per 100,000 Live Births
101-

OMIM Number
142700

Mode of Inheritance
Multifactorial

Gene Map Locus
13q22

Description
The acetabulum is the cup-shaped part of the pelvis, where the head of the femur meets the pelvis, forming the hip joint. Hip dysplasia is a condition wherein the acetabulum is inadequately developed, and remains shallow and dish shaped, instead of the usual cup-shaped. Congenital hip dysplasia (CDH) is a condition that exists at the time of birth of the baby, whereas developmental dysplasia of the hip (DDH) is seen in children that are born with apparently normal hips, but develop the problem within the first year of their life.

The first noticeable symptom of hip dysplasia is a clicking in the joint during movement. Additional symptoms include pain in the joint during activity, a noticeable limp, difference in the length of the legs. X-ray of the hip bones in suspected individuals can clearly diagnose the condition. If diagnosed before the age of 6-months, the main aim of treatment would be to fix the hip in a correct position, usually using a device called a Pavlik Harness. Children diagnosed later than 6-months, need a more prolonged form of treatment, but can still expect to have a good prognosis. Children diagnosed and treated later than 1-year of age may require surgical correction, and prognosis may not be as good as in those diagnosed earlier. The factors that play a role in the development of DDH include race, female sex, being the first born child, and breech delivery.

Molecular Genetics
An underlying genetic disposition has been noticed in DDH. A 10-fold increase in the frequency of hip dysplasia has been seen to occur in children whose parents also had DDH. Recent research has shown a linkage to chromosome 13q22 for familial hip dysplasia, although it is not yet clear what genes are involved.

Epidemiology in the Arab World
United Arab Emirates
Hosani and Czeizel (2000) evaluated the pilot dataset [March-May 1998] of the UAE National Congenital Abnormality Registry (NCAR). A total of 4,861 births were recorded in this study period, with a birth prevalence of total congenital anomalies being 30.3 per 1,000 births. Hip dislocation was identified in four neonates, resulting in an incidence rate of 0.82 per 1,000 births.

Moosa et al. (2009) retrospectively studied babies born in Dubai Hospital and suspected of having hip dysplasia between the years 2004 and 2005. Of the 3,786 children born in the hospital, 100 were clinically suspected to have hip dysplasia, while only 12 of them were confirmed to have the condition. One of the babies required surgery. Moosa et al. (2009) calculated the incidence of radiologically confirmed cases of hip dysplasia

among Emiratis in Dubai to be 3.17 per 1000 live births.

References

Hosani HA, Czeizel AE. Congenital abnormalities in the United Arab Emirates. Teratology. 2000; 61(3):161-2. PMID: 10661903

Moosa NK, Kumar PT, Mahmoodi SM. Incidence of developmental dysplasia of the hip in Dubai. Saudi Med J. 2009; 30(7):952-5. PMID: 19618014

Related CTGA Records

N/A

External Links

http://emedicine.medscape.com/article/1248135-overview

http://www.hipandpelvis.com/patient_education/periace/page1.html

http://www.orthoseek.com/articles/hipdys.html

Contributors

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