

Håberg Ø, Foss O, Lian ØB, Holen KJ. Is foot deformity associated with developmental dysplasia of the hip? Results after examination of 60,844 newborns. *Bone Joint J.* 2020;102-B(11):1582-1586.

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Sir,

I read this recent paper in its online version with interest.¹

I would agree with the authors' conclusion that there is an increased risk of sonographically diagnosed developmental dysplasia of the hip (DDH) in association with certain foot deformities, particularly congenital talipes calcaneovarus (CTCV) and possibly metatarsus adductus. This concurs with the findings published by my unit in 2009.²

However, DDH is a spectrum of disease and ultrasound imaging includes both physiological and pathological types. Most physiological DDH (Graf Types I and II) and clinical instability resolve spontaneously without treatment. Pathological types include irreducible hip dislocation, and Graf Types III and IV which do not resolve and may progress to irreducible dislocation. In the Håberg et al study,¹ a femoral head cover (FHC) method of ultrasound imaging was used to diagnose DDH and has been shown by Rosendahl & Toma³ to be an acceptable way of diagnosing pathological DDH. However, Irha et al⁴ noted that the FHC method, while excellent in diagnosing normal or severely dysplastic hips (pathological), was less good at differentiating between normal and minor hip dysplasia (physiological), raising the possibility of false positive diagnoses.

The issue is not if there is an association between foot deformity and DDH, but if there is an association with pathological DDH (Graf Type III, IV and irreducible dislocation).

Although foot deformities are associated with DDH, most are physiological in type and resolve spontaneously. There does not appear to be an association between pathological DDH and congenital talipes equinovarus (CTEV) although there may be an association with CTCV^{2,5}: larger studies may be necessary to prevent statistical error.

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1. **Håberg Ø, Foss O, Lian ØB, Holen KJ.** Is foot deformity associated with developmental dysplasia of the hip? Results after examination of 60,844 newborns. *Bone Joint J.* 2020;102-B(11):1582-1586.
2. **Paton RW, Choudry Q.** Neonatal foot deformities and their relationship to developmental dysplasia of the hip: an 11-year-old prospective, longitudinal observational study. *J Bone Joint Surg Br.* 2009;91-B(5):655-658.
3. **Rosendahl K, Toma P.** Ultrasound in the diagnosis of developmental dysplasia of the hip in newborns. The European approach. A review of methods, accuracy, and clinical validity. *Eur Radiol.* 2007;17(8):1960-1967.
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5. **Paton RW, Choudry QA, Jugdey R, Hughes S.** Is congenital talipes equinovarus a risk factor for pathological dysplasia of the hip? A 21-year prospective longitudinal observational study. *Bone Joint J.* 2014;96-B(11):1553-1555.

Conflict of Interest: None