

Correspondence

Incidence of developmental dysplasia of the hip in Dubai

To the Editor

I would like to comment on the interesting study by Moosa et al¹ on the incidence of developmental dysplasia of the hip in Dubai.

First, developmental dysplasia of the hip (DDH) carries a significant morbidity if not early diagnosed and appropriately treated. The reported prevalence of established DDH in an unscreened population varies from 0.7 to 1.6/1000 children in European and American white populations. In clinically screened populations, neonatal hip instability is reported to occur in 3 to 30/1000 newborns, while established DDH has a prevalence of 0.1-4/1000 of which 1/1000 is judged to be in need of surgery.² The reported incidence of DDH in infants born to United Arab Emirates (UAE) nationals in Dubai (3.17/1000 live births) stated by Moosa et al¹ is generally worrying. Moosa et al¹ addressed that the incidence of clinically diagnosed DDH in the studied infants was 27/1000 live births, which dropped to 3.17/1000 live births confirmed by imaging studies. Truly, given its low specificity, clinical examination can not reliably detect ultrasonographically defined DDH in infants being screened for this disease.³ Ultrasound imaging has become the accepted tool for accurate diagnosis of DDH and its management. Recently, it is recommended that the optimum strategy, associated with the highest probability of having a non-arthritic hip later in life, is to screen all neonates for DDH with a physical examination and to use ultrasonography selectively for infants who have risk factors and abnormal physical examination. This would be cost-effective and the only practicable method for most countries.^{2,4}

Second, it is well-known that DDH follows a multifactorial inheritance. However, autosomal dominant inheritance has been increasingly reported in recent years.⁵ Consanguineous couples have a higher risk of having children with various congenital malformations.⁶ Though Moosa et al¹ addressed that only 4 out of 12 newborns were born to consanguineous parents and only one had positive family history of DDH, the role of consanguinity should not be overemphasized in increasing propensity of families in UAE nationals to have offspring with DDH, as the number of studied newborns with DDH was small. Consanguinity is a noticeable phenomenon in the UAE, in particular Dubai, where the consanguinity rate was noticed to be higher in the current generation than the parent generation (50.5% versus 39%), as was the coefficient of inbreeding (0.023 versus 0.0158).⁷

Therefore, genetic counseling should be contemplated if limiting the foreseeable increasing burden of DDH is to be achieved.

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Reply from the Author

We appreciate the interest taken by Prof. Al-Mendalawi in our article on the incidence of development dysplasia of the hip in Dubai. Indeed, it was due to our observation that a higher number of cases of DDH were treated in Dubai hospital that prompted us to undertake the study. The result of the study also shows the incidence is alarmingly high. Most of the lax hip joints stabilize within a few days and immediate ultrasound screening can pick up many false positive cases. It is generally accepted to screen suspected cases after 4-6 weeks of age. We did not comment on the consanguinity as the percentage of consanguineous parents of the normal babies born during the study period was not available. We accept the need for counseling to reduce the incidence of hip dysplasia and thanks to Prof. Al-Mendalawi for his valuable comments.

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References

1. Moosa NK, Kumar PT, Mahmoodi SM. Incidence of developmental dysplasia of the hip in Dubai. *Saudi Med J* 2009; 30: 952-955.
2. Desprechins B, Ernst C, de Mey J. Screening for developmental dysplasia of the hip. *JBR-BTR* 2007; 90: 4-5.
3. Dogruel H, Atalar H, Yavuz OY, Sayli U. Clinical examination versus ultrasonography in detecting developmental dysplasia of the hip. *Int Orthop* 2008; 32: 415-419.
4. Mahan ST, Katz JN, Kim YJ. To screen or not to screen? A decision analysis of the utility of screening for developmental dysplasia of the hip. *J Bone Joint Surg Am* 2009; 91: 1705-1719.
5. Ceylaner G, Ceylaner S, Ustünkan F, Inan M. Autosomal dominant inheritance of congenital dislocation of the hip in 16 members of a family. *Acta Orthop Traumatol Turc* 2008; 42: 289-291.
6. Søgaard M, Vedsted-Jakobsen A. Consanguinity and congenital abnormalities. *Ugeskr Laeger* 2003; 165: 1851-1855.
7. al-Gazali LI, Bener A, Abdulrazzaq YM, Micallef R, al-Khayat AI, Gaber T. Consanguineous marriages in the United Arab Emirates. *J Biosoc Sci* 1997; 29: 491-497.