

How Ready are Pediatricians and Family Physicians in Saudi Arabia to Perform Clinical Screening of Developmental Dysplasia of the Hip? [Letter]

Joseph Gerard O'Beirne¹, Konstantinos Chlapoutakis², Ustun Aydingoz³

¹Department of Orthopaedics, University Hospital Waterford, Waterford, Ireland; ²Vioapeikonisi Imaging Lab, Heraklion – Crete, Greece;

³Department of Radiology, Hacettepe University School of Medicine, Ankara, Turkey

Correspondence: Joseph Gerard O'Beirne, Email jgobeirne@gmail.com

Dear editor

We read with interest the article by Suqaty et al¹ titled “How Ready Are Pediatricians in Saudi Arabia to Perform Clinical Screening of Developmental Dysplasia of the Hip?”. We applaud their support for the principle of improving the standard of screening for developmental dysplasia of the hip (DDH). In the course of their discussion, they make reference to our 2019 consensus statement,² stating that our international group recommended universal ultrasound screening, “although little evidence supports this practice”. In order to help clarify any misconceptions, we would like to draw attention to what in fact amounts to a good deal of evidence in the literature supporting universal ultrasound screening.

Wirth et al³ reported that their system of universal ultrasound screening had resulted in a dramatic reduction in the rates of surgical procedures, hospitalisation and late presentation of DDH. A further paper from Germany⁴ again demonstrated a reduction in the rate of operative procedures for DDH due to what they termed “general” (ie universal) ultrasound screening. In 2011, Tschauner et al⁵ reported that babies from the screened population had a 98.9% success rate with closed treatment of DDH (as compared with an 88.7% success rate in a historical unscreened group); they concluded that universal ultrasound had made treatment of DDH shorter, safer and simpler. Thallinger et al⁶ reported on a full review of the effects of the Austrian national ultrasound screening system for the years 1992–2008, based on data from the Austrian Ministry of Health. They observed that the rate of late pelvic surgery for DDH had dropped from 1.3 per 1000 to 0.7 per 1000 live births; they also concluded that among Austrian children who have benefitted from the screening programme, the open reduction rate was 0.12 per 1000 live births. Hospital admission rates for DDH had declined from 9.5 to 3.6 per 1000 live births.

Regarding the issue of the cost of a universal ultrasound screening programme, ie whether it is cost-effective, Thaler et al⁷ analysed the situation as it had applied in the Austrian province of Tyrol. Once again, they demonstrated a marked reduction in the rate of operative procedures for DDH, but in addition they calculated that the surgery that had been avoided represented a cost saving that more than offset the cost of the screening programme itself.

Sanghrajka et al,⁸ based in the UK, reported a review of patients who underwent open reduction in Great Ormond Street Hospital; none had been harnessed under 6 weeks, and none had had neonatal hip ultrasound screening. Only a minority had had a risk factor that should have triggered a scan using a selective ultrasound regime. This review concluded that contemporary screening practices were failing to eliminate the need for open reduction. Along similar lines, a study based in the USA reported by Sink et al⁹ looked at skeletally mature patients who underwent surgery for late consequences of DDH; 85.3% of them had not had risk factors that would have triggered a scan in a selective screening programme.

All of the above studies were referenced in our 2019 paper. Meanwhile, while our paper was in preparation, a further study was published from Innsbruck, Austria,¹⁰ which examined a consecutive series of just over 28,000 infants who were screened as part of the universal ultrasound screening programme; from this population there was one open

reduction, and the overall cumulative rate of open surgery was 0.7 per 1000. More recently, a meta-analysis published in 2020¹¹ has suggested that universal ultrasound screening would result in a statistically significant reduction in the incidence of late-diagnosed DDH.

We hope that the foregoing provides your readers with reassurance that there is ample evidence in the literature to support the principle of universal ultrasound screening for DDH.

Disclosure

The authors report no conflicts of interest in this communication.

References

1. Suqaty R, Alomran AK, Alkhalifah MK, et al. How ready are pediatricians and family physicians in Saudi Arabia to perform clinical screening of developmental dysplasia of the hip? *J Multidiscip Healthc*. 2023;16:2567–2576. doi:10.2147/JMDH.S416459
2. O'Beirne JG, Chlapoutakis K, Alshryda S, et al. International interdisciplinary consensus meeting on the evaluation of developmental dysplasia of the hip. *Ultraschall Med*. 2019;40(4):454–464. doi:10.1055/a-0924-5491
3. Wirth T, Stratmann L, Hinrichs F. Evolution of late presenting developmental dysplasia of the Hip and associated surgical procedures after 14 years of neonatal ultrasound screening. *J Bone Joint Surg Br*. 2004;86(4):585–589. doi:10.1302/0301-620X.86B4.14586
4. Von Kries R, Ihme N, Altenhofen L, et al. General ultrasound screening reduces the rate of first operative procedures for developmental dysplasia of the Hip: a case control study. *J Paediatr*. 2012;160(2):271–275. doi:10.1016/j.jpeds.2011.08.037
5. Tschauner C, Fürntrath F, Saba Y, Berghold A, Radl R. Developmental dysplasia of the Hip: impact of sonographic newborn Hip screening on the outcome of early treated decentered Hip joints—a single center retrospective comparative cohort study based on Graf's method of Hip ultrasonography. *J Child Orthop*. 2011;5(6):415–424. doi:10.1007/s11832-011-0366-y
6. Thallinger C, Pospischill R, Ganger R, Radler C, Krall C, Grill F. Long-term results of a nationwide general ultrasound screening system for developmental disorders of the Hip: the Austrian Hip screening program. *J Child Orthop*. 2014;8(1):3–10. doi:10.1007/s11832-014-0555-6
7. Thaler M, Biedermann R, Lair J, Krimer M, Landauer F. Cost-effectiveness of universal ultrasound screening compared with clinical examination alone in the diagnosis and treatment of neonatal Hip dysplasia in Austria. *J Bone Joint Surg Br*. 2011;93(8):1126–1130. doi:10.1302/0301-620X.93B8.25935
8. Sanghrajka AP, Murnaghan CF, Shekkeris A, Eastwood DM. Open reduction for developmental dysplasia of the Hip: failures of screening or failures of treatment? *Ann R Coll Surg Engl*. 2013;95(2):113–117. doi:10.1308/003588413X13511609957137
9. Sink EL, Ricciardi BF, Torre KD, Price CT. Selective ultrasound screening is inadequate to identify patients who present with symptomatic adult acetabular dysplasia. *J Child Orthop*. 2014;8(6):451–455. doi:10.1007/s11832-014-0620-1
10. Biedermann R, Riccabona J, Giesinger JM, et al. Results of universal ultrasound screening for developmental dysplasia of the Hip: a prospective follow-up of 28 092 consecutive infants. *Bone Joint J*. 2018;100-B(10):1399–1404. doi:10.1302/0301-620X.100B10.BJJ-2017-1539.R2
11. Jung HW, Jang WY. Effectiveness of different types of ultrasonography screening for developmental dysplasia of the Hip: a meta-analysis. *Medicine*. 2020;99(50):e23562. doi:10.1097/MD.00000000000023562

Dove Medical Press encourages responsible, free and frank academic debate. The content of the Journal of Multidisciplinary Healthcare 'letters to the editor' section does not necessarily represent the views of Dove Medical Press, its officers, agents, employees, related entities or the Journal of Multidisciplinary Healthcare editors. While all reasonable steps have been taken to confirm the content of each letter, Dove Medical Press accepts no liability in respect of the content of any letter, nor is it responsible for the content and accuracy of any letter to the editor.

Journal of Multidisciplinary Healthcare

Dovepress

Publish your work in this journal

The Journal of Multidisciplinary Healthcare is an international, peer-reviewed open-access journal that aims to represent and publish research in healthcare areas delivered by practitioners of different disciplines. This includes studies and reviews conducted by multidisciplinary teams as well as research which evaluates the results or conduct of such teams or healthcare processes in general. The journal covers a very wide range of areas and welcomes submissions from practitioners at all levels, from all over the world. The manuscript management system is completely online and includes a very quick and fair peer-review system. Visit <http://www.dovepress.com/testimonials.php> to read real quotes from published authors.

Submit your manuscript here: <https://www.dovepress.com/journal-of-inflammation-research-journal>

<https://doi.org/10.2147/JMDH.S443761>