EVALUATION OF THE RESULTS OF HIP ULTRASOUND SCREENING FOR DEVELOPMENTAL DYSPLASIA OF THE HIP AMONG INFANTS IN A TERTIARY SETTING

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Background The aim of our study was to investigate the rate of developmental dysplasia of the hip (DDH), and the association between the risk factors for DDH and the results of the hip ultrasound (US) findings among healthy infants

Methods The study group consisted of healthy infants who admitted to the outpatient Healthy Child Clinics of Istanbul University, Cerrahpasa Medical Faculty for their routine control between December 2014 and May 2015. Files of the patients who were followed up at least 1 year of age were reviewed with regard to risk factors (sex, birth weight and length, type of delivery, order of birth, type of presentation, maternal age, history of oligohydramnios, multiple pregnancy, swaddling history, family history of DDH) and hip US findings. All infants had their hip US performed at 4 to 6 weeks of age in the Radiology Department of Istanbul University.

Results A total of 300 infants (175/125: male/female) with a birth weight and length of 3137.03±557.23 gr and 49.69±2.68 cm, respectively were enrolled. Fifteen infants had a history of maternal oligohydramnios (5%), 70 (23.3%) were born vaginaly, 27 (9%) had been born as twins and 2 (0.7%) had breech presentation. Family history of DDH was present in 17 infants (5.7%) and 28 (9.3%) had a swaddling history. US finding of immature hip was detected in 52.9% of those with a family history of DDH and 13.6% of those with a swaddling history. There was a statistically significant association between family history of DDH and swaddling, and finding of immature hip on US (p=0.0001). In those with findings of immature hip, left hip was affected in 28 (56%) and right hip was affected in 13 (26%) infants. Involvement of left hip was significantly more frequent in case of an immature hip on US (p=0.04). Only one infant had a finding of DDH (Type 2b) on US.

Conclusions The rate of DDH in this study was 0.3%, while the rate of immature hip was 16.7%. Positive family history and swaddling were found to have a strong association with immature hip on US with a significantly more frequent involvement of the left hip. We want to emphasize that family history of DDH should be sought during evaluation of an infant with regard to DDH. We realized that swaddling was still a common practice in Turkey for which the parents should be warned about its associated risk for DDH.

SIGNIFICANCE OF MRI IN THE DIAGNOSIS OF PELVIC OSTEOMYELITIS IN CHILDREN – 2 CASE REPORTS

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Background Bone mineral disturbances are often complication of the cystic fibrosis (CF) patients with impact linear growth, quality of life and life expectation and may be contraindication for lung transplant. Osteoporosis is a complex multifactorial diseases which started in the childhood.

The aim of our study was to evaluate bone mineral metabolism in CF children in the Saint-Petersburg.

Materials In the present study 57 CF children, aged 5–18 years were included. For assessment of bone health we evaluated: i) number of significant fractures; ii) dual-energy X-ray absorptiometry in spine and hip, iii) bone mineral density in the pelvis using high-resolution magnetic resonance imaging (HR-MRI).

Results A total of 300 infants (175/125: male/female) with a birth weight and length of 3137.03±557.23 gr and 49.69±2.68 cm, respectively were enrolled. Fifteen infants had a history of maternal oligohydramnios (5%), 70 (23.3%) were born vaginaly, 27 (9%) had been born as twins and 2 (0.7%) had breech presentation. Family history of DDH was present in 17 infants (5.7%) and 28 (9.3%) had a swaddling history. US finding of immature hip was detected in 52.9% of those with a family history of DDH and 13.6% of those with a swaddling history. There was a statistically significant association between family history of DDH and swaddling, and finding of immature hip on US (p=0.0001). In those with findings of immature hip, left hip was affected in 28 (56%) and right hip was affected in 13 (26%) infants. Involvement of left hip was significantly more frequent in case of an immature hip on US (p=0.04). Only one infant had a finding of DDH (Type 2b) on US.

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Bone mineral density in cystic fibrosis children in Saint Petersburg

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