

Background Growth in the first year of life may already be predictive of growth and obesity later in childhood. Early life exposure to endocrine disrupting chemicals (EDCs) has been associated with obesity in children and older populations.

Objective To assess the association between prenatal exposure to various EDCs and child growth in the first year of life.

Methods Cord plasma or breast milk was used to determine exposure to amongst others dichlorodiphenyldichloroethylene (DDE), mono (2-ethyl-5-oxohexyl) phthalate (MEOHP), and mono (2-ethyl-5-carboxypentyl) phthalate (MECPP). Data on weight and length until 11 months after birth was obtained. Mixed models were composed for each compound and health outcome. Exposure quartiles, time, and gender were added to the models as fixed effects. Subject was added as a random effect.

Results For MEOHP, boys in Q1 had a consistently higher BMI than higher exposed boys ($p = 0.029$). MECPP exposure was related to increased BMI over time in both boys and girls in Q1, though the association was not significant ($p = 0.117$). The effect of MECPP exposure on BMI was mainly due to weight, which was higher in the low exposed groups. For DDE interaction between time and exposure was significant ($p = 0.078$). For boys in particular, those with relatively low exposures had higher BMI curves during the first year.

Conclusion Low exposure to phthalates and DDE was associated with BMI during the first year after birth. Results were gender specific, and associations were mostly non-monotonic. Follow-up is warranted to see if these effects are persistent during childhood.

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EVALUATION OF PATIENTS WITH DIAGNOSIS OF FAMILIAL MEDITERRANEAN FEVER IN UMRANIYE REGION OF ISTANBUL

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Background and aims A retrospective evaluation of clinical findings and genetic analysis of patients with Familial Mediterranean Fever (FMF) in Umraniye region of Istanbul.

Methods 44 patients with FMF were evaluated retrospectively in the Department of Paediatrics between 2013–2014 years.

Results The mean age of 44 patients was 8.8 years. Female-male ratio was 1.2:1. The clinical characteristics of patients were recorded as fever (84%), abdominal pain (72.7%), recurrent infection story (47.7%), myalgia (43.1%), arthritis (15.9%; monoarthritis, 11.4%, polyarthritis 4.5%), pleuritis (11%), erysipelas-like erythema (7%), vasculitis (2.2%). MEFV gene analysis in patients has revealed 8 mutations. The most common mutation type was M694V (47.7%) followed by E148Q (38.6%), R202Q (15.9%), M680I (11.3%), V726A (9%), P369S (6.8%), M694I and K695 (2.2%), respectively. The M694V mutation was detected in 58% of homozygous mutations. Patients with homozygous M694V mutation have shown significantly more often joint complaints when compared to patients with other mutations. The joint complaint was usually seen in the form of monoarthritis. The clinical immigrant polyarthritis ratio was 2.2%.

Conclusions Although most previous genetic studies showed that M694V mutation was the leading locus of risk for developing amyloidosis, we couldn't determine amyloidosis in our study. In comparison with national studies, clinical signs of pleuritis,

arthritis and erysipelas-like erythema determined at lower rates in our study. The M680I mutation, which is very rare among Jews and relatively more prevalent in Armenians and Arabs, was the fourth most common mutation in our study, although it was the second common mutation in nationwide studies.

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CROSS-CULTURAL STUDY OF ADAPTATION IN FAMILIES OF INDIVIDUALS WITH DOWN SYNDROME

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Background There is growing evidence that while some families of individuals with Down Syndrome (DS) find it difficult to adapt to the ongoing challenges associated with raising an individual with DS, others adapt successfully and some even thrive. However, few studies have examined the experiences of families living in different countries. Therefore, the aim of this study was to examine the influence of family factors on adaptation in families of individuals with DS living in four countries.

Methods The guiding framework for this study was the Resiliency Model of Stress, Adjustment and Adaptation. Over 800 parents of individuals with DS from Ireland, Portugal, UK, and USA completed a survey which included these measures: Family Index of Regenerativity and Adaptation- General; Family Management Measure; Family Problem Solving Communication Index and the Brief Family Assessment Measure. Linear mixed modelling was used accounting for intra-familial correlation and constant variance for the two parents. An adaptive modelling process was also used.

Results Family functioning was worse with greater family strains and incendiary communication and with lower condition management ability, affirming communication, and family hardiness. Parent wellbeing was worse with greater condition management effort, family strains, family stressors and incendiary communication and with lower condition management ability and family hardiness.

Conclusion Findings contribute to our understanding of the underlying processes associated with differing outcomes in families of individuals with DS. Efforts to intervene will be more effective if clinicians recognise how culture and family factors interact and shape how families respond.

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THE IMPACT OF CONGENITAL HEART DISEASE ON CHILDREN WITH DOWN SYNDROME ADMITTED FOR BRONCHIOLITIS

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Background and aims Children with Down Syndrome (DS) are reported to have increased morbidity due to bronchiolitis. We aim to study if congenital heart defects will have an impact on children with DS admitted for bronchiolitis.

Methods We identified children with DS with diagnosis of bronchiolitis from 2004 to 2012 from electronic records. We define congenital heart defects (CHD) as all congenital heart defects except small patent ductus arteriosus or small atrial septal defect.