dysmorphic features, skeletal anomalies, goitre or pigmentation. The rest of the examination was unrevealing.

Investigations showed normal CBC, ESR, and liver and renal and thyroid functions. Sweat chloride test, and tissue trans-glutaminase concentrations were normal. His IGF-I level = 70 (IGF-I SDS = -1) and his bone age = 3 years. The peak GH response to clonidine stimulation test = 10 ng/dl. Brain MRI showed normal pituitary gland.

Because of the decelerated growth and marginally low IGF-I a trial of GH therapy was started (0.035 mg/kg/day s.c. HS). A rapid catch-up of growth occured during the first 3 years of treatment that was maintained at a slower pace during the following 5 years. Testicular enlargement started at 11 years and at 12 years his HtSDS = 0.8 and bone age = 12.5 years. His predicted adult height = 181 cm.

Conclusion Prolonged GH treatment of this boy (normal GH--IGF-I axis) with GH unexpectedly resulted in a HTSDS which surpassed his MPHtSDS by 1.4 SD.

PO-0073 WITHDRAWN

PO-0074 PSEUDO-BARTTER'S SYNDROM AS A FIRST MANIFESTATION OF CYSTIC FIBROSIS IN INFANCY

S Fustik, T Jakovska, L Spirevska. *Center for Cystic Fibrosis, University Children's Hospital, Skopje, Macedonia*

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Background and aims Metabolic alkalosis in association with low serum electrolyte concentration (hyponatremia, hypochloremia, and hypokalemia) is known complication of cystic fibrosis (CF) in infancy. The condition is a metabolic mimickery of Bartter's syndrome, therefore is sometimes referred to as pseudo-Bartter's syndrome in CF. The aims of study were to estimate the prevalence of this metabolic disorder as a first manifestation of CF and the influence of some clinical and genetic factors on its developing.

Methods The records of all 85 newly diagnosed infants with CF in the period from 1998 to 2013 were reviewed. In addition to data of acid-base and electrolyte status at first admission, clinical and CFTR genotype data of patients with pseudo-Bartter's syndrome were analysed.

Results 16 infants had manifestations of hyponatremic/hypochloremic dehydration with metabolic alkalosis, therefore the prevalence of pseudo-Bartter's syndrome among newly diagnosed infants with CF in our region was 18.8%. Mean age of patients was 3.5 (range 1–8) months. Most of them were breastfed. Mean values of blood pH, serum bicarbonate, sodium, chloride and potassium (mmol/L) were: 7.57 ± 0.06, 44.89 ± 7.23, 117.87 ± 5.38, 67.06 ± 8.48, 2.69 ± 0.47, respectively. Concerning CFTR genotypes of these patients, a great variability was found: F508del/ F508del (7), F508del/G542X (3), F508del/ 621+G >T (1), F508del/457TAT >G (1), F508del/711+3A >G (1), G126D/V456F(1) and F508del/Unknown (2). Three of them were pancreatic sufficient.

Conclusions The possibility of CF should be seriously considered in any infant with metabolic alkalosis and hypoelectrolytemia, whether or not there are associated pulmonary and/or gastrointestinal symptoms. The initial diagnosis of Bartter's syndrome can be excluded by hypochloruria.

PO-0075 HEAD CIRCUMFERENCE IN THE FIRST YEAR AFTER BIRTH – THE EFFECT OF PRENATAL EXPOSURE TO ORGANOCHLORINES AND PHTHALATES

[1]M de Cock, [2]MR de Boer, [3]M Lamoree, [3]J Legler, [1]M van de Bor. *[1]Health and Life Sciences, VU University, Amsterdam, Netherlands; [2]Health Sciences, VU University, Amsterdam, Netherlands; [3]Institute for Environmental Studies, VU University, Amsterdam, Netherlands*

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Background Children with autism may experience increased head growth during the first year of life. Furthermore, early life exposure to endocrine disrupting chemicals (EDCs) may be associated with an increased risk of autism. Exposure to EDCs has been associated with fetal head circumference (HC), however research on long-term effects is scarce.

Objective To assess the association between prenatal exposure to various EDCs and HC 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-hydroxyhexyl)phthalate (MEHHP), and mono (2-ethyl-5-carboxypentyl)phthalate (MECPP). Data on HC until 11 months after birth was obtained. Mixed models were composed for each compound. Exposure quartiles, time, and gender were added to the models as fixed effects. Subject was added as a random effect.

Results Boys with high MECPP exposure had a consistently higher HC than lower exposed boys ($p = 0.047$). This was also observed for girls in Q2 for both MEHHP ($p = 0.018$) and DDE ($p < 0.001$) exposure. For MEHHP the difference with the quartile showing the smallest HC was 2 cm at 11 months of age, which was not statistically significant (HC Q2: 44.9, 95% CI 43.2–46.7; HC Q3: 42.9, 95% CI 42.2–43.5).

Conclusion For MECPP, MEHHP, and DDE exposure over time, a higher HC was observed in low exposed children in a gender-specific way. Follow-up is warranted to see if associations persist into later childhood and are related to autism spectrum disorders.

PO-0076 PREVALENCE OF OVERWEIGHT AND OBESITY AMONG 5–6-YEAR-OLD CHILDREN IN NORTH PART OF SERBIA

S Turudic. *Department of Pediatrics, Local Health Center "Dr Milorad Mika Pavlovic", Indjija, Serbia*

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Background and aims Overweight and obesity among children became an important public health concern as their prevalence within the preschool population has been markedly increased in last decades. The aim of the present study was to examine and compare the prevalence of overweight and obesity among 5–6 year old children either sex in year 2003 and year 2013.

Methods Overweight and obesity were measured by body mass index (BMI). BMI 85–95th percentile was considered as overweight and BMI ≥ 95th percentile represents obesity. The study was performed in the total population of 859 nonselected 5–6 year old children (423 in 2003 and 436 in 2013) by retrospective analysis of their medical documentations.

Results The overall prevalence of overweight in 2003 was 9.63%, whereas the prevalence of obesity was 9.46%. However, 10 years later, in 2013, the prevalence of overweight was significantly higher (15.6%) as well as the prevalence of obesity (13.53%). Prevalence of overweight and obesity among

preschool children is significantly increased in the last decade (student t-test, p).
Conclusions Data from 2013 indicate that about 30% of young children encounter the obesity problem. Therefore, children at this age already should represent the priority population for intervention strategies such as control of diet and/or physical activity.

PO-0077 VITAMIN D DEFICIENCY IN CHILDREN WITH OSTEOGENESIS IMPERFECTA

BL Meena, I Panigrahi, RK Marwaha. *Pediatrics, Postgraduate Institute of Medical Education and Research (PGIMER), Chandigarh, India*

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Background and aims Osteogenesis imperfecta (OI) is a disorder that leads to fragile bones and significant morbidity. The aim was to find out the prevalence of Vitamin D deficiency in children with OI.
Methods In present study, 15 children with clinically severe OI on zoledronate therapy were studied. The biochemical parameters tested were Vit D level and urine DPD level along with the routine parameters like Ca, Po, ALP, and urinary calcium creatinine ratio. We used a cut-off value of 30 ng/ml for vitamin D deficiency. Also cost effectiveness of zolendronate therapy was assessed.
Results Most of the OI patients were vit D deficient (80%). The mean value of vitamin D in the study was 21.89 ± 9.76 (mean ±SD), and median value was 25.49 units. This treatment in present study did not significantly increase the financial burden on the family using alternate brand of zolendronate.
Conclusions High prevalence od Vitamin D deficiency in OI may be due to their less mobility and thus less sun exposure, the low vit D level can decrease their response to zolendronate treatment Vitamin D supplementation may be needed at higher doses along with oral calcium in patients with OI put on bisphosphonates therapy. Generic preparations of zoledronate do not increase the burden of therapy in patients with OI. Further studies are needed to find out long term side effects of zoledronate therapy in children.

PO-0078 THE RELATIONSHIP BETWEEN MATERNAL AND NEONATAL 25(OH) VITAMIN D STATUS

D Anuk Ince, A Ecevit, A Abbasoglu, U Tugcu, A Kurt, MA Tekindal, D Aldemir, A Tarcan. *Department of Pediatrics, Baskent University School of Medicine, Ankara, Turkey*

10.1136/archdischild-2014-307384.748

Background In this study we aimed to investigate the relationship between maternal and neonatal 25(OH)D levels.
Methods The subjects were 58 mothers and their newborns who were born between February 2012 and April 2012. Blood specimens were obtained within 72 h of birth and from mothers. Serum 25(OH)D concentrations were measured. Vitamin D deficiency was defined as serum concentrations ≤20 ng/mL.
Results The mean gestational age and birth weight of preterm infants were 33.06 ± 2.2 weeks and 2125.4 ± 546 g and for term infants were 38.84 ± 1 weeks and 3470.3 ± 451 g, respectively. Sociodemographic characteristics of mothers were not significantly different between groups.

Twelve percent of infants born before 32 completed weeks, 16% infants born between 32–36 weeks and 28% of term infants had vitamin D deficiency. Vitamin D deficiency was found in 27% mothers of preterm infants and 42% mothers of term infants.
Conclusion Vitamin D receptors plays an important role in calcium absorption and bone metabolism. In the literature there are reports that vitamin D deficiency during pregnancy had adverse gestational outcomes including risk of pre-eclampsia, gestational diabetes. The mean vitamin D levels were normal in infants whereas their mothers had low levels of vitamin D. When we consider that all mothers in the study received vitamin D supplements, we should give appropriate vitamin D prophylaxis during pregnancy. Also we should give adequate vitamin D supplementation to the infants without any delay.

PO-0079 URINARY N-TELOPEPTIDE LEVELS ARE NOT ASSOCIATED WITH VITAMIN D STATUS IN HEALTHY CHILDREN

[1]CA Stoian, [1]JK Mah, [2]AC Chin, [1]A Khan. *[1]Pediatrics, Alberta Children's Hospital, Calgary, Canada; [2]Pathology and Laboratory Medicine, Calgary Laboratory Services, Calgary, Canada*

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Background and aims Urinary levels of N-telopeptide (NTx) have been reported to be a sensitive and specific marker of bone resorption. This cross-sectional study determined the urinary levels of NTx among healthy children living in Calgary and explored their relationship with age, sex and vitamin D status.
Methods We included healthy children 2 to 13 years of age who presented to the Alberta Children's Hospital for elective surgery during a 12-month period. Data including the child's weight, height, age, gender, ethnicity, dietary intake, vitamin intake, and physical activity were collected. Urinary NTx levels were measured with a commercially (Wampole Laboratories, Princeton) available competitive-inhibition enzyme-linked immunosorbent assay.
Results Urinary NTx levels were available for 968 out of 1862 participants, of whom 605 (62.5%) were boys. The mean urinary NTx/Creatinine ratio was 605.4 nmol/mmol (SD 264.8, range 200–2985.1). We found that mean urinary NTx/creatinine excretion was higher in the younger children (2–5 years) compared to subsequent ages. There was no significant difference in urinary NTx levels between children with suboptimal vitamin D status (serum 25-hydroxyvitamin D <80 nmol/L) compared to those with optimal vitamin D status.
Conclusions Higher urinary NTx levels were measured in our healthy paediatric participants compared to what has been reported in healthy adults. In healthy children, urinary NTx levels may not be a useful marker of increased bone turnover in face of suboptimal vitamin D status. Future research is needed to determine the effect of suboptimal vitamin D status on bone health in children.

PO-0080 LAXITAS GENERALISATA

B Stanimirov. *Pediatrics, Health Center, NOVI SAD, Serbia*

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