

among blacks, 34% showed the latter genotypes, and 76%, low-risk ($p=0.001$).

Conclusions: In the present sample the presence of polymorphic variants of UGT1A1 could not be associated to severe hyperbilirubinemia. Variants showed allelic prevalence and frequencies similar to those observed in other populations, with a highlight to the genotypes of higher risk in blacks and mulattos. Possibly due to the high miscegenation found in our state, other factors and genic interactions should be sought in order to explain severe neonatal hyperbilirubinemia, including the study of other polymorphisms.

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VITAMIN D AND OTHER PARAMETERS OF CALCIUM AND PHOSPHATE METABOLISM IN HEALTHY TERM NEWBORNS AFTER BIRTH

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Background: The literary information about vitamin D saturation in newborns is rare. Levels of vitamin D in healthy term newborns in the Czech Republic have not been examined yet. The vitamin D saturation in newborns depends mainly on maternal saturation during gravidity that may be decreased due to nutritional habits and climatic conditions in the Middle Europe.

Objective: To get comparative values for examining of bone metabolism in newborns with very-low-birth weight.

Design: A prospective study conducted in spring period 2006 in a cohort of 28 healthy term caucasian newborns with normal birth weight . Blood and urine samples were drawn at the age of 3-7 days for examination of 25-hydroxyvitamin D (25/OH/D), calcium (Ca), phosphate (P), alkaline phosphatase (ALP), osteocalcin (OC), intact parathormone (PTH) in serum and calcium and phosphate in urine.

Results: Though other parameters of Ca and P metabolism were in normal range, levels of 25/OH/D were considerably lower than reference values found in literature . A significant correlation was found between 25/OH/D level and OC level, and futher a negative correlation (but not significant) of 25/OH/D and PTH.

Conclusion: Term newborns in the Czech Republic are born with an insufficient supply of vitamin D in the spring period obviously. The significant correlation of 25/OH/D level with bone formation marker (OC) and the tendency to higher PTH concentrations in newborns with lower 25/OH/D levels support the premise of an adverse effect of low vitamin D supply on long-term bone development.

Keywords: Vitamin D, newborn, bone development

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A COMPARISON OF THE WHO CHILD GROWTH STANDARDS AND THE CZECH GROWTH REFERENCES: PREVALENCE OF WASTING AMONG INFANTS

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Subjects: The study (grant IGA Mof H grant No. NS 9974, 4/2008) utilized the 2006 WHO Child Growth Standards and the 1991 Czech growth references. The WHO standards were based on a longitudinal study of 882 children aged 0-24 months and on cross-sectional studies of 6,669 children aged 18-71 months. The 1991 Czech growth references were based on a cross-sectional survey including 90,910 children aged 0-18 years (4,164 were children < 5 years).

Methods: The overall ratio of wasting in the sample of Czech children from the 1991 survey was calculated using the WHO Anthro software (version 2) and the WHO criteria for wasting.

Results: The prevalence of wasting was significantly higher among Czech children when using the WHO growth standards compared to the Czech references. The prevalence of wasting among 0-5 month old children was 15.5 % among boys and 12.9 % among girls compared to the expected 2.3% of the WHO standards.

Conclusions: The application of the WHO growth standards may results in a significant increase in the prevalence of wasting among Czech children, especially among infants aged 0-5 months. The performance and potential impacts of the WHO