

Prevalence of Hypercalciuria among School Children

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Objective: To determine the prevalence of hypercalciuria in primary and secondary school students.

Design: Prospective randomized study.

Setting: Primary and secondary schools in Makkah and Baha, Saudi Arabia.

Method: Seven hundred ninety-six school-age children were included in a study from January 2007 to December 2007. Non-fasting random urine specimens were analyzed for calcium and creatinine concentrations.

Result: The mean ratio of urine calcium-creatinine (Ca/Cr) was 0.11; the range was 0.008 to 0.837. Non-fasting Ca/Cr ratios were significantly different between Makkah and Baha and between males and females in both cities. The Ca/Cr ratio was highest in 6-7 years-old students (mean, 0.14 ± 0.01). Seventy-eight (9.8%) students were hypercalciuric, 29 (3.6%) were from Makkah and 49 (6.2%) from Baha students. The prevalence of hypercalciuria differed with age.

Conclusion: The study showed highly significant difference in prevalence of hypercalciuria between Makkah and Baha. A child's geographic area, age and ethnicity should be taken into consideration when assessing the urinary calcium creatinine ratios.

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