Reference values for urinary calcium, sodium and potassium in healthy newborns, infants and children.

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Source

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Erratum in


Abstract

The urinary calcium/creatinine ratio (UCa/Cr) in spot urine samples has been used extensively for screening and diagnosis of hypercalciuria (HC). The aim of this study was to determine the normal values for UCa/Cr, urinary sodium/creatinine (UNa/Cr), urinary potassium/creatinine (UK/Cr) and urinary sodium/potassium (UNa/K) ratios in healthy Turkish children aged 0-5 years. A total of 425 children were enrolled in the study. The urine samples were obtained from the second morning urine in children after breakfast and the first urine after feeding in infants. Urine Ca, Cr, Na and K levels were studied. A positive correlation was found between the UCa/Cr, UNa/Cr, UK/Cr and UNa/K ratios. Our results suggest that UCa/Cr is age-related and declines in the first five years of life except for in the newborn period. It might be concluded that determination of the upper limit of UCa/Cr in children less than five years old for every population can prevent unnecessary laboratory investigations and misdiagnosis of hypercalciuria.