

Bozkurt H.¹, Sarıca K.², Çetin T.³

¹Kafkas University, Dept. of Pediatrics, Kars, Turkey, ²Kafkas University, Dept. of Urology, Kars, Turkey, ³Kafkas University, Dept. of Radiology, Kars, Turkey

Introduction & Objectives: In this present study we aimed to evaluate the metabolic factors, clinical course of the stones detected in infancy period to assess the possible outcome of the disease and the relationship between breastfeeding duration and progression of the disease.

Materials & Methods: Forty-eight infants with renal stones diagnosed between 0 and 23 months were included in this retrospective cohort study program. Children were called for regular follow-up visits and evaluated well from different aspects. In addition to physical examination findings, renal size and parenchymal thickness measured by ultrasonography, localization, size and number of stones, spot urine analysis data, metabolic evaluation findings (hypercalciuria, hypocitraturia, hyperoxaluria, hyperuricosuria), presence of family history, more importantly breastfeeding and formula use duration were well evaluated. The relationship between the disease course (progression or staying stable) and the duration of breastfeeding was well evaluated from different aspects by referring to the original characteristics of the stones at the time of the first diagnosis.

Results: The mean follow-up period for our patients was $46,21 \pm 23,22$ months and the most important metabolic risk factor was hypercalciuria with a rate of 29.2%. The mean duration of breast milk intake was longer in children with no progression or reduced size and /or number of stones. Children receiving breast milk only for the first 6 months of life required less need for treatment and growth retardation was limited in these cases. Additionally, persistence of the stones and/or disease progression were prominent in children with a positive family history anamnesi.

Conclusions: Our findings and the published data so far have demonstrated well that breastfeeding has critical effects on infantile urolithiasis. Duration of breastfeeding was found to be protective on the growth retardation and urinary tract infections. Breastfeeding should be encouraged in children with stones particularly detected during infancy period. Further studies with larger series of case are needed to reveal the positive effects of breast milk on the clinical course of urolithiasis in children.