Is Early Morning Urine Osmolality a Good Predictor of Response to Oral Desmopressin in Children with Primary Monosymptomatic Nocturnal Enuresis?

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The objective of this retrospective study is to evaluate the effectiveness of using early morning urine osmolality as a predictor of response to oral desmopressin in children with primary monosymptomatic nocturnal enuresis. Children treated solely with oral desmopressin for primary monosymptomatic nocturnal enuresis, between the period of January 1997 and June 2002, were recruited for the study. Early morning urine osmolality was measured before the use of desmopressin. Response to desmopressin is classified as good, intermediate or poor according to the reduction in frequency of nocturnal enuresis after eight weeks of desmopressin therapy. Total 53 patients were recruited in the study while 12 of them were excluded. Forty-one children were evaluated. Male sex is predominant. After eight weeks of treatment, thirteen children were classified as good responders, 16 as intermediate responders and 11 as poor responders. The age at treatment and the frequency of nocturnal enuresis before treatment among the three groups were comparable without any statistical significance. The early morning urine osmolality from the good responders was 791±260 mosmol/kg, from the intermediate responders was 797±168 mosmol/kg, and from the poor responders was 865±233 mosmol/kg respectively. There is no statistically significant difference in early morning urine osmolality among the three groups by the ANOVA analysis, with p value >0.05. We conclude that early morning urine osmolality is not effective in predicting the response of a child with primary monosymptomatic nocturnal enuresis to oral desmopressin therapy. (HK J Paediatr (new series) 2004;9:50-53)

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