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DO SCREENING PARAMETERS PREDICT RESPONSE TO DESMOPRESSIN IN A PRIMARY NOCTURNAL ENURESIS POPULATION?

Hypothesis / aims of study
In children with nocturnal enuresis a frequency/volume chart or bladder diary provides information to choose the appropriate therapy and to evaluate the chosen therapy. The aim of this study is to identify possible predictive factors to desmopressin treatment response.

Study design, materials and methods
The study is a re-analyses of an international study evaluating ≤6 months treatment of children with primary nocturnal enuresis using desmopressin tablets. 471 children completed this prospective open-label study with 6 months follow-up and registration in a calendar.

Results
Only the demographic variable age ($p < 0.001$) is a significant predictor of response to desmopressin. Country, family history and sex had no predictive value. Controlling for age, significant predictive variables were: average daytime voided volume ($p=0.0305$), average daytime voided volume corrected for Hjalmas ($p=0.0305$), maximum daytime voided volume ($p=0.0022$), maximum 24h voided volume ($p<0.0001$), nocturnal diuresis ($p<0.0001$), nocturnal diuresis corrected for Rittig ($p<0.0001$), total 24h urinary output ($p<0.0001$), total daytime urinary output ($p=0.0188$) and number of wet nights per week ($p=0.0053$). Three factors are of major concern to predict therapy outcome of desmopressin: age, 24h urine output and number of wet nights a week. More than 80% of the patients had no nocturnal polyuria and a small bladder for age.

Interpretation of results
Most patients had no nocturnal polyuria and a small bladder for age, therefore the chosen therapy, desmopressin was not the appropriate therapy.

Concluding message
The results clearly demonstrate the importance of a frequency/volume chart for patient selection in order to choose the appropriate therapy and to elevate the success rate.

Disclosures
Funding: Statistician supported by Ferring Pharmaceuticals, Ltd. **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** It was an international study, each of the hospitals used their own Ethical Institutional Board **Helsinki:** Yes **Informed Consent:** Yes