

# Role of desmopressin and enuresis alarm in improving the symptoms and sleep quality in children with primary monosymptomatic nocturnal enuresis

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## Background

Primary mono-symptom nocturnal enuresis (PMNE) is a common clinical disease with complex pathogenesis. Desmopressin (DDAVP) and enuresis alarm (EA) are first-line treatments suggested by ICCS. But their effects on sleep are poorly studied.

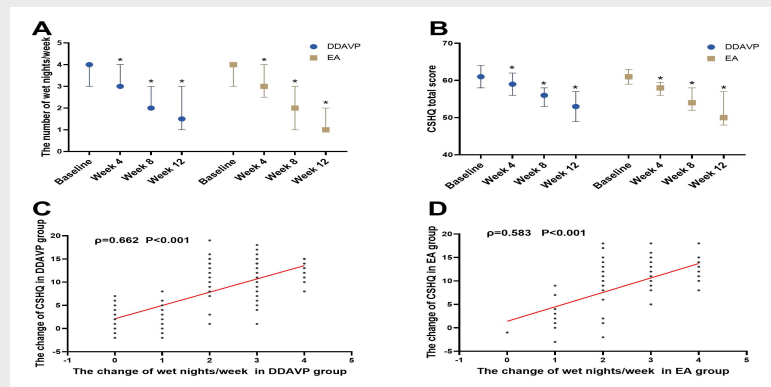
## Methods

208 children aged 6-14 with PMNE were randomly assigned to DDAVP or EA groups. Utilized the Children's Sleep Habits Questionnaire (CSHQ) to assess sleep quality. A 12-week observation period recorded enuresis and sleep status.

## Results

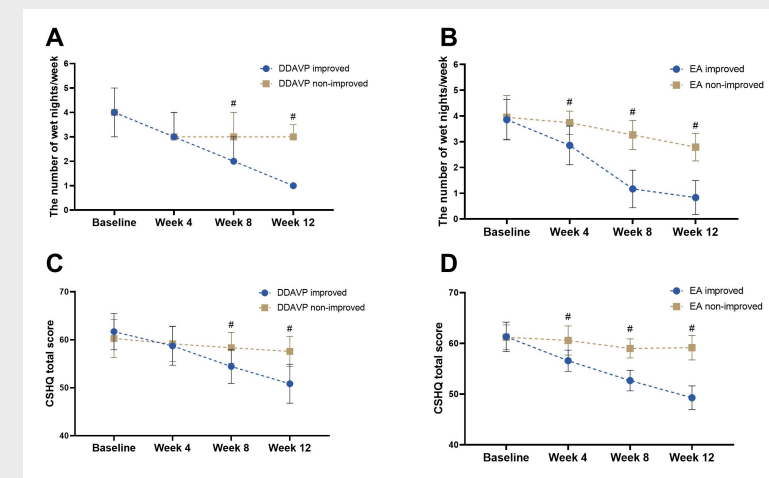
A total of 179 children were finally analyzed (97 boys and 82 girls) with an average age of 8.97 (1.94) years, 119 (66.5%) children had significantly improved enuresis symptoms, including 77 in the DDAVP group and 42 in the EA group.

CSHQ total scores significantly decreased (DDAVP: 61.21 to 53.19; EA: 61.28 to 52.89,  $P < 0.001$ ). And there was no significant difference in the improvement of CSHQ total score between the two groups [8.5 (3.75,13) and 10 (4,13),  $Z = 0.982$ ,  $P = 0.326$ ].



A statistically significant correlation was observed between CSHQ scores and the reduction in the number of enuresis nights/week in the DDAVP treatment group ( $\rho = 0.662$ ,  $P < 0.001$ ) and the EA treatment group ( $\rho = 0.583$ ,  $P < 0.001$ ).

The total CSHQ scores and the number of enuresis nights per week showed greater improvement in the DDAVP and EA improved groups compared to the non-improved groups.



## Implications

Both DDAVP and EA significantly improved enuresis symptoms and sleep quality in children with PMNE.

Improvement in sleep quality is significantly correlated with symptom improvement, indicating sleep may play a crucial role in enuresis pathology. It also suggests that sleep differences might be a useful indicator to judge the treatment efficacy of PMNE.