

The effect of screen time on the presentation and treatment of primary monosymptomatic nocturnal enuresis

Arif Demirbas & Hacer Gizem Gercek. BMC Urology 2023; 23: 22

What we know already:

- Primary monosymptomatic nocturnal enuresis (PMNE), or bedwetting, is caused by increased nighttime urine production and/or reduced nocturnal bladder capacity, coupled with an increased threshold for waking to a full bladder
- Children with bedwetting have differences in REM sleep
- Excessive screen time (ST) has been found to impair sleep quality, and may thereby increase risk of bedwetting

Aims of this study:

- The aim of this study was to investigate whether there was any relationship between ST and the degree and severity of PMNE and treatment success

Type of study and methods:

- This was a prospective cohort study of children (N=71) diagnosed with PMNE from history, 2-day voiding and drinking diary and urine analysis
- The first stage looked at the relationship between screen time and PMNE severity
- The second stage looked at response to desmopressin (120 µg desmopressin melt) with or without a concomitant restriction in screen time to <60 min/day (n=44 completers)

Findings:

- Significantly more children had severe symptoms (6–7 wet nights/week) at baseline in the group with high ST (>120 min/day) compared with low ST (<120 min/day; 42.6% vs 16.7% respectively, $p=0.033$)
- After 3 months of treatment, the rate of full response (100% dry) was significantly higher in those who also restricted ST (<60 min/day) compared with those who just took medication (70% vs 31%; $p=0.021$).
- Failure to respond (<50% dryness) was seen in significantly fewer patients who restricted ST (5% vs 30%; $p=0.048$)
- Significantly more patients who did not restrict ST relapsed 1 month after cessation of treatment (60% vs 7%; $p=0.037$)

Conclusions and clinical implications:

- Excessive screen time is associated with more severe bedwetting
- The rate of full response to desmopressin was much higher in children who reduced screen time compared with those who did not, and compared with the usual response rates reported in the literature
- Maintenance of treatment response after cessation of desmopressin was also more likely with screen time restriction
- Ensuring screen time is within normal limits for children with enuresis may be an important and easy way to reduce severity and/or improve treatment response in primary care - further randomised trials are needed



PMNE, primary monosymptomatic nocturnal enuresis; ST, screen time