

IMMEDIATELY OUTCOME OF DDAVP VERSUS BEHAVIOURAL MODIFICATION FOR TREATMENT OF MONOSYMPTOMATIC NOCTURNAL ENURESIS: A PROSPECTIVE RANDOMIZED STUDY OF 30 PATIENTS

Hypothesis / aims of study

The therapeutic options for Monosymptomatic Nocturnal Enuresis (MNE) include the use of medications and behavioral modifications. Many studies demonstrate the effectiveness of the use of Desmopressin in a variety of doses and forms of administration (1). We have previously demonstrated the efficacy of behavioral modification on a great number of children (2). In our experience, it seems that the patient and parents adherence to the treatment is related to how fast the first line therapy improves the children's symptoms. In this study, we compare the use of DDAVP and behavioural modifications (BM) in monosymptomatic nocturnal enuresis as a first line treatment.

Study design, materials and methods

We performed a prospective randomized study of outpatient children with diagnostic of primary MNE from May 2002 to February 2004. Patients with no previous treatment were randomized into two groups: A) Patients treated with DDAVP; B) Patients treated with behavioural modification. The DDAVP treatment was performed titrating the dose to a maximum of 0.4 mg at bed time. Children treated with BM were submitted to a previously described association of different modalities of BM (2), such as, dietary and fluid adjustments, voiding schedules, double voiding, bedtime toileting, alarm clock once at night, pelvic floor training, environmental modifications, changes in parent's attitudes, improvement of self-esteem, self-care. All patients filled a 14 days nocturnal diary before initiate the treatment and were instructed to keep filling this diary every night during the 30 days of treatment. The analysis were performed considering the bedwetting episodes in the last 14 days of treatment.

Results

Thirty children with mean age of 9.2 +/- 1.8 years old were evaluated. The two randomized groups were matched for age, gender and pre treatment number of bedwetting episodes (Table 1). The improvement on bedwettings episodes on the two groups is shown on table 2. Age or gender was not related to the improvement. It was observed that 46.6% and 53.3% of the children presented improvement of 50% or more on the bedwetting episodes and 30% and 6% had completely failed (no improvement at all), respectively on the DDAVP and BM groups. Comparing the two groups, patients treated with BM had a greater decrease the number of bedwetting episodes than the DDAVP group (Table 2; p=0.029).

Table 1: Comparison of age, gender and pre treatment bedwetting episodes in two groups

	Group A	Group B	Total	p
Age (mean ± SD)	9.53 ± 2.16	8.93 ± 1.48	9.23 ± 1.85	0.486
Gender – N (%)				
Male	12 (80%)	9 (60%)	21 (70%)	0.232
Female	3 (20%)	6 (40%)	9 (30%)	
Pre treatment bedwetting episodes (mean ± SD)	9.87 ± 2.90	8.93 ± 3.88	9.40 ± 3.40	0.539

Table 2: Comparison of pre and post treatment bedwetting in the two groups.

	Pre treatment (meam ± SD)	Post treatment (meam ± SD)	p
Group A (DDAVP)	9.87 ± 2.90	7.27 ± 4.00	0.047
Group B (BM)	8.93 ± 3.88	3.93 ± 3.32	0.003
Total	9.40 ± 3.40	5.60 ± 3.99	0.0005

Interpretation of results

The results show that both therapeutic options offer similar improvement of bedwetting episodes in a short term treatment. However, the BM presents lower chance of completely failure when compared to DDAVP. The results with BM could be optimized if performed for longer period as previously shown in a study with a 4 months treatment (2). The association of different modalities of BM could be improved by adding the DDAVP on the first approach. Further studies should be performed to evaluate the long term efficacy, adherence and the effects of the association of BM and DDAVP.

Concluding message

In a short term follow-up, both therapeutic approaches isolated promote improvement in bedwetting episodes, with lower failure rate favoring the BM in comparison to DDAVP. As both treatments generated good improvement, the concomitant use of both therapies, at least in the initial approach, could maximize the bedwetting reduction, which would motivate patient and parents to persist the treatment. In a second period, the treatment can be individualized according to the facilities and preferences.

References

- 1 Desmopressin for nocturnal enuresis in children (Cochrane Review) In: The Cochrane Library, Issue 4, 2002.
- 2 Behavioral interventions in primary enuresis: experience report in Brazil. Urologic Nursing, v 22, n 4, 257-262, 2002.