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LETTER TO THE EDITORS

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Efficacy and safety of nasal desmopressin in the long-term treatment of primary nocturnal enuresis

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Sirs,

We read with great interest the article entitled "Comparing alarms, desmopressin, and combined treatment in Chinese enuretic children" by Ng et al. [1]. The authors stated that the response rates decreased after the cessation of treatment (12 weeks) from 53% (20 of the 38 patients) to 21% (eight patients) for oral desmopressin alone, and from 78% (25 of the 32 patients) to 41% (13 patients) for the combination therapy with oral desmopressin plus alarms [1]. Two previous reports also described decreased continence after the cessation of nasal desmopressin therapy {six months, from 68% (60 of the 88 patients) to 10% (nine patients) [2], and 3–12 months, from 61% (245 of the 399 patients) to 16% (12 of the 73 patients) [3]}.

In our study, the effect of nasal desmopressin for between 12 months and 24 months (from November 2003 to October 2005) was investigated at Dokkyo University School of Medicine Hospital in 56 children (18 girls, 38 boys) 6–15 years old (mean age 8.4±2.2 years) diagnosed with primary nocturnal enuresis (PNE), with urine osmotic pressure decreasing to below 800 mOsm/L at night [4]. We initially administered nasal desmopressin at a dose of 10 micrograms at bedtime. If the patient remained incontinent after four weeks, we increased the dose to 20 micrograms (the maximum dose allowed in Japan [4]). Medication was interrupted for one week every third month to test for a cure. Urinalysis (osmotic pressure, protein, sugar and occult blood), biochemical (serum alanine aminotransferase, aspartate aminotransferase, creatine kinase, sodium, potassium and creatinine), and hematological (red blood cell, white blood cell and hemoglobin) values were determined every three months for adverse events.

"Nonresponse," where the frequency decreased by less than 50% during the first three months following the start of treatment, was observed in six (11%) of the 56 children with PNE, similar to the results [8% (four of the 49 patients)] in Lee's report [5]. The other 50 of the 56 children recruited were enrolled in long-term treatment, because they experienced a >50% reduction in the number of wet nights. Although there were repeated relapses off medication, the final results showed that 24 (48%) of the 50 children with PNE were relapse-free when the frequency of NE decreased to zero or to once-monthly off medication. Our results after the cessation of therapy showed greater efficacy than in the three previous reports {21% [1], 10% [2] and 16% [3]}, because the term of treatment in our study (between 12 and 24 months) was longer than three previous studies (between 3 and 12 months) [1–3]. There were no adverse events, except for one event of acute rhinitis and one event of excitement.

In conclusion, our clinical study has provided evidence that nasal desmopressin is both safe and effective for long-term treatment (between 12 and 24 months) in children with PNE.

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