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DOES BEING IN CONTROL MAKE LIFE BETTER? THE USE OF DESMOPRESSIN IN DAYTIME URINARY INCONTINENCE.

Aims of Study

Urinary incontinence is a common condition that adversely affects Quality of Life.**(1)** Drug therapy is known to be effective in the management of lower urinary tract symptom although compliance, and therefore improvement in Quality of Life, may be limited by troublesome adverse effects.**(2)** Desmopressin, a synthetic analogue of ADH, is known to be effective in the management of nocturnal enuresis and nocturia due to its potent anti-diuretic action. The aim of this study was to assess the use of desmopressin in the management of daytime urinary incontinence and to examine the impact on Quality of Life by allowing women to take the drug at a time of their choice when they wished to be dry.

Methods

A double-blind randomised placebo-controlled multi-centre multinational observational study of desmopressin nasal spray in the management of women with severe daytime urinary incontinence. Following a five-day run-in period, eligible patients received seven single doses of desmopressin (40 μg) and three single doses of matching placebo on 10 treatment days over one month according to one of four randomised sequences. Placebo was administered on three consecutive treatment days. Patients used diaries to record the time of dosing, adverse events, body weights, voiding times, volume of each void, incontinence episodes and weight of incontinence pads before usage and whenever the pads were changed. Patients were allowed to use the spray at any time during the day according to their own preference.

The primary efficacy endpoint was the number of periods without leakage (defined as ≤ 5g pad weight gain) for 4 hours post-dose. The secondary efficacy endpoints included: time from medication to first void/incontinence episode, volume voided per incontinent episode, total volume voided [volume of voids and incontinent episodes] and the number of periods without leakage at various time intervals over 24 hours post-dose. Statistical analysis was performed using a two-sided paired exact Wilcoxon signed rank test.

Objective assessment of Quality of Life using the Kings Health Questionnaire (KHQ) **(1)** was performed at baseline prior to trial entry, and following completion of the study. Statistical analysis was performed using Wilcoxon Signed Ranks test (SPSS, v 10).

Results

Overall 64 women with severe urinary incontinence [stress (13), urge (16) mixed (31)] were recruited in three centres. Of these 60 received study medication. The mean (range) age was 53.3 (24.9-78.0) years. During the run-in period, the mean (SD) recorded number of incontinence episodes/24 hours was 3.7 (3.2) and the 24-hour urine volume was 1557 (526) ml. There was a higher incidence of periods without leakage of 61.7% four hours post-desmopressin compared to 47.9% on placebo (p=0.001). In addition, there was a lower mean total volume voided of 237 ml on desmopressin compared to 317 ml on placebo (p=0.001). 37% of patients had no leakage on virtually all (6 or 7) treatment days for 4 hours after desmopressin administration.

During the time period of 4-8 hours post-dosing, there was a smaller difference between treatments with a 67.8% incidence of periods without leakage on desmopressin compared to 62.7% on placebo. The incidence of periods without leakage from 8-24 hours was similar for the two treatments.

Time to first incontinence episode/void was slightly higher on desmopressin (2.3±1.0 hrs) compared to placebo (2.1±1.0 hrs). Total volume voided was consistently lower on desmopressin compared to placebo up to 12 hours and the total 24-hour volume voided was significantly lower on desmopressin (1180±582 ml) compared to placebo (1375±625 ml). There were no apparent differences according to the type of urinary incontinence. There were no significant adverse events.

Objective Quality of Life assessment using the KHQ was performed in a subset of 36 patients in one centre at baseline and on completion of the study. There were no significant differences recorded in any of the 9 domains of Quality of Life **[Table 1]**.

TABLE 1: URINARY QUALITY OF AT BASELINE AND STUDY COMPLETION.

Quality of Life Domain	Baseline	Completion	
General Health Perception	34.38	29.17	p = 0.096
Incontinence Impact	91.67	80.56	p = 0.054
Role Limitation	64.58	68.06	p = 0.673
Physical Limitation	65.28	69.57	p = 0.958
Social Limitation	43.06	48.31	p = 0.133
Personal Relationships	47.06	42.16	p = 0.776
Emotions	70.71	60.65	p = 0.204
Sleep / Energy	67.42	60.42	p = 0.052
Severity Measures	79.70	76.23	p = 0.282

Conclusions

Desmopressin offers a safe and effective management option for women complaining of severe daytime urinary incontinence. It enables them to choose when they require treatment and by promoting self-motivation improves compliance. Whilst the drug was well tolerated there was no significant improvement in Quality of Life during treatment with regard to lower urinary symptoms. This may be due to the fact that the drug is used intermittently rather than on a continuous basis and is only perceived to affect quality of life when taken rather than leading to a global improvement. In addition the trial design and randomisation process in this particular study may have been a confounding factor affecting Quality of Life assessment. This exploratory study suggests that the concept of antidiuresis in daytime urinary incontinence should be further investigated in a larger trial with particular emphasis on Quality of Life assessment.

References

1. Kelleher CJ, Cardozo LD, Khullar V, Salvatore S. A new questionnaire to assess the quality of life of urinary incontinent women. Br J Obstet Gynaecol. 1997; 104: 1374-1379.
2. Kelleher CJ, Cardozo LD, Khullar V, Salvatore S. A medium-term analysis of the subjective efficacy of treatment for women with detrusor instability and low bladder compliance. Br J Obstet Gynaecol. 1997; 104: 988-993.