

DIAZEPAM ADD ON THERAPY; AN EFFECTIVE PHARMACOTHERAPY FOR NOCTURIA UNRESPONSIVE TO ALPHA-1 ADRENORECEPTOR ANTAGONIST COMBINED WITH ANTI-CHOLINERGICS TREATMENT IN MEN

Hypothesis / aims of study

The aim of the present study was to determine whether administration of diazepam, a benzodiazepine sedative-hypnotic agent, at night would improve the frequency of nocturia and sleep quality in men unresponsive to alpha-1 adrenoreceptor antagonist combined with anti-cholinergics therapy.

Study design, materials and methods

We retrospectively reviewed men (aged ≥ 40 years) who had nocturia one or more per night (International Prostate Symptom Score [IPSS] question 7) after taking alpha-1 adrenoreceptor antagonist combined with anti-cholinergics for more than 12 weeks. All had failed to respond to treatment their underline disease and evening fluid restriction. At first, patients were given alpha blocker (tamsulosin, 0.2mg) and anti-cholinergic agent (solifenacin, 5mg) once daily at night. Among them, the patients who did not show complete improvement were additionally administered diazepam 2mg once daily. We measured IPSS score, uroflowmetric parameters (peak flow rate [Qmax], postvoid residual [PVR]) before and after diazepam add on treatment for 3 months. The participants completed a series of questionnaires on the Medical Outcomes Study (MOS) sleep scale and 3-day frequency volume (FV) chart before and after the treatment.

Results

The number of nocturia episode was significantly decreased after diazepam add on (from 3.54 ± 1.1 to 1.94 ± 1.3 , $p=0.001$). Uroflowmetric values (PFR and PVR), total IPSS and irritative symptoms scores were significantly decreased compared with baseline after add on treatment. Among the categories of the MOS sleep scale, sleep index ($p=0.003$), Sleep disturbance ($p=0.001$), Snoring ($p=0.028$), shortness of breath ($p=0.036$) were significantly changed with a decreased number of nocturia episodes after diazepam add on treatment. Adverse event was mild.

Interpretation of results

Our results indicate that diazepam resulted in a significant reduction in nocturia episodes and irritative symptoms when given to some men who unresponsive to the alpha 1 adrenoreceptor antagonist combined with anti-cholinergic agent. The sleep quality was also improved.

Concluding message

Diazepam add on therapy is effective on nocturia and sleep quality.

Disclosures

Funding: Nothing to disclosure **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** Ethics Committee of Chonnam National University Medical School **Helsinki:** Yes **Informed Consent:** Yes