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NSAIDS FOR NOCTURNAL POLYURIA- AN OBSERVATIONAL STUDY

Aims of Study

Nocturia defined as waking up during nighttime to pass urine is the commonest of lower urinary tract symptoms (LUTS) and is reported by 72% of the elderly population. Nocturnal polyuria is one of the common causes for nocturia, which has a significant impact on the quality of life. There have been many drugs, which have been tried with variable success. There is an anecdotal evidence for the role of non-steroidal anti-inflammatory drugs (NSAIDs) in the treatment of nocturnal polyuria. The objective of this pilot study is to evaluate the efficacy in alleviating symptoms of nocturnal polyuria by altering the time of intake of NSAIDs by the patients who are already on a morning dose to a nighttime dose at 2200 hours.

Methods

We performed an observational study on patients (median age75.5 years) who attended the urology department with symptomatic nocturia (range 1.7 to5) who were already on a morning dose of NSAIDs (aspirin, diclofenac, ibuprofen) for other reasons. The base line frequency volume charts (FVC) for one week along with fluid intake details were obtained and analysed from 15 patients. Of whom, 10 patients with nocturnal polyuria with nocturnal urine volume being greater than 30% of total urine volume with nocturia index of greater than 1 were included in the study. The other 5 patients were excluded as they did not fit into the diagnostic criteria and two of them had polyuria. FVC chart analysing parameters were nocturia, nocturnal urine volume, nighttime to daytime diuresis ratio, percentage of nocturnal urine volume in relation to 24 hrs urine volumes and 24 hr urine volume. The study patients were then advised to alter the timing of intake of NSAIDs from morning to 2200 hrs for a week's duration, during which a repeat FVC was requested.
During this period patients were advised to continue with their other normal medication and not to alter their fluid intake habits.

Results

A significant subjective and objective improvement in the symptoms was noticed. The mean number of nocturnal voids decreased from 2.94 to 2.08 reflecting a 29% improvement ($p<0.005$). The mean night to day diuresis ratio decreased by 30% from 2.36 to 1.65 ($p<0.005$) and the mean ratio of night time/24 hrs urine volume decreased by 24% from 54.3 to 41.4 ($p<0.005$). No significant difference in 24hr urine output was noted between the two weeks ($p=0.3$).

Conclusions

This pilot study indicates the possible role of NSAIDs in the treatment of nocturnal polyuria and the significant symptomatic improvement that can be achieved by altering the time of intake of the medication. This also presents a novel insight into the therapies for nocturnal polyuria.
Encouraged by the results of this observational study a prospective, randomised, placebo-controlled trial in now in progress in our department.