## AUTHOR'S REPLY

Reply to: Juszczak K, Drewa T. The cardiovascular and gastrointestinal adverse effects of cyclooxygenase inhibitors seems to be a major concern that restricts their use in the treatment of urinary bladder dysfunction. Cent European J Urol. 2015; 68: 57-59.

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As the role of inflammation in the initiation, development and evolution of benign prostatic hyperplasia (BPH) has been increasingly better understood with the aid of preclinical studies, BPH therapy with nonsteroidal anti-inflammatory drugs (NSAIDs) has gained popularity [1]. However, considering their significant cardiovascular and gastrointestinal risks, NSAIDs usage cannot be considered entirely without consequence. We completely agree with the notifications of Juszczak and Drewa [2] about the risks and morbidities of NSAIDs therapy in the "urological" patient. Patients with lower urinary tract symptoms suggestive of benign prostatic obstruction (LUTS/BPO) constitute an important part of our daily urological practice. Since BPH is a common disease of the aging male and NSAIDs are frequently prescribed in this population, it is better to focus specifically on the NSAIDs therapy in the elderly. These patients have increased morbidity, and besides, alterations in pharmacokinetics associated with aging may make the elderly more susceptible to NSAID-related adverse effects.

No serious cardiovascular toxicity was observed in our small cohort [3], but NSAIDs have been shown to increase the risk of cardiovascular events and strokes [4]. These adverse effects are more apparent with the use of cyclooxygenase-2 (COX-2) inhibitors rather than non-selective NSAIDs. Just because of its cardiovascular toxicity, rofecoxib has already been withdrawn from the market. Conversely, in only a few studies, myocardial infarction, heart failure or major adverse cardiac events were not observed with NSAIDs therapy [4]. The unknown long-term effects of these agents in elderly patients are another aspect of NSAIDs therapy that needs to be enlightened. We are not able to comment on this subject since we used flurbiprofen for only 4 weeks in our study [3].

Gastrointestinal adverse effects of flurbiprofen were the most prominent of all and the main reason for resignation from the therapy in our study [3]. However, NSAIDs were found to be well-tolerated at therapeutic doses by a majority of the patients for a short-term period [5]. Again, long-term effects and toxicity of these drugs on the gastrointestinal system need to be further investigated.

Adverse effects were not the primary focus of our study, and so we think that large, prospective, long-term and controlled studies are needed to explore the effects of NSAIDs on cardiovascular and gastrointestinal morbidity in the geriatric population. Just like in our study [3], the NSAIDs therapy resulted in improved symptoms and/or urinary flow associated with BPH [1]. However, as pointed out by Juszczak and Drewa [2], adverse effects were a major concern restricting the use of NSAIDs for LUTS/BPO treatment. We believe that in the future NSAIDs will find an indication, at least as an adjunct to other conventional drug therapies.

## References

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