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Miscellaneous

The Relationship between Weight as Well as the Kind of Prostate Hypertrophy and the Response to Tamsulosine, a Specific α-Blocker

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ABSTRACT

Purpose: To study the effects of Tamsulosine (Flowmax) as a specific α-blocker in patients with prostate weighted less than 40 gr and lacked median lobe and to compare them to patients with prostate weighted more than 40 gr with median lobe.

Materials and Methods: Forty outpatients with BPH were referred to clinic and intentionally enrolled in this study. Patients were divided into 2 groups of 20 patients. Tamsulosine was daily administered for all of them for 6 weeks. Routine tests were performed for all patients, all of which were normal. The probability of prostate cancer was ruled out. The size of prostate and type of hypertrophy were determined by one radiologist via DRE, suprapubic ultrasonography and TRUS-P. Patients were divided into A and B groups according to the size of prostate and the lack of median lobe or its presence. Prostate size was less than 40 mg in group A and all patients lacked median lobe; whereas, prostate size was more than 40 mg (between 40-60 mg) in group B and patients had some median lobe.

Results: An increase of 30% in base line Q Max and a decrease of 25% in base line IPSS was seen in 16 patients (80%) of group A, while these were observed only 9 patients (45%) of group B.

Conclusion: Determination of prostate size and the type of hypertrophy seems to be essential before any Tamsulosine administration. The weight of prostate is determined by protoscan.

KEY WORDS: prostate size, hypertrophy, Tamsulosine

Introduction

Before 1980, prostatectomy was regarded as the only acceptable method in the management of Benign Prostatic Hypertrophy (BPH). However, complications such as mortality caused by cardiac complications and unsuccessful procedures, urinary system infection, impotency, postoperative hemorrhage and bladder neck and urethral stricture led to the increased tendency toward applying medical treatment. On the other hand, the discovery of modern α blocker drugs with special inhibition characteristic, the decrease of side effects of these medications and the reversibility of complications following the termination of drugs could increase the use of above mentioned medications; as, it was reported that prostatectomy was decreased form 250,000 cases in 1987 to 116,000 cases in 2000; a decline of 55% , which might be due to the use of α adrenergic blockers particularly their specific types such as Tamsulosine, Doxazosine and Alfuzosine. However, one of the disadvantages of such medical treatments is their ineffectiveness in patients with median lobe hypertrophy, which would be discussed later on for the first time. The author believes that the impact of

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Ball Valve in median lobe hypertrophy could cause obstructive effects and α receptors have no role in the obstruction caused by contraction of striated muscles of median lobe, so that the use of such drug could not omit this contraction.

We studied the effects of Tamsulosine (Flowmax) as a specific α blocker in patients with prostate weighted less than 40 gr and lacked median lobe and compared them with patients with prostate weighted more than 40 gr with median lobe.[1,2,3]

Materials and Methods

Forty outpatients with BPH at the age of 52-67 years were referred to clinic and entendedly enrolled in this study. Patients were divided into 2 groups of 20 patients. Tamsulosine capsule 0.4 mg was administered daily for all of them for 6 weeks. Patients were morally oriented, no acute urinary retention was reported by them, and they tended to use this medication. Routine tests were performed for all patients, all of which were normal. The probability of prostate cancer was ruled out by the measurement of prostatic specific antigen (PSA) and digital rectal examination (DRE).

The size of prostate and type of hypertrophy were determined by one radiologist via DRE, suprapubic ultrasonography, and TRUS-P.[4] Lack of bladder stone and hydronephrosis were also assured by performing ultrasonography and urethral stricture was ruled out by inserting a 18 F nelaton catheter. Patients were divided into two groups: A and B, according to the size of prostate and the lack of median lobe or its presence. Prostate size was less than 40 mg in group A and all patients lacked median lobe; whereas, prostate size was more than 40 mg (between 40-60 mg) in group B and patients had some median lobe.

None of the patients used drugs, which interact with the use of specific α blocker. Q Max and flow rate were measured in all patients before and after treatment and were recorded in particular form, as well. International Prostatic Symptom Score (IPSS) was also determined, which was 8-19 (moderate) in both groups.

Data analysis was conducted by a comparison between ratios using chi-Square with SPSS. Following the treatment an increase of 30% in Q Max from base line and a decrease of 25% in IPSS base line were considered positive responses. [2,5,6,7]

Results

An increase of 30% in base line Q Max and a decrease of 25% in base line IPSS was seen in 16 patients (80%) of group A, while these were observed only 9 patients (45%) of group B. Four out of these 9 patients had no or small median lobe.

Discussion

By recent introduction of specific α blockers such as Tamsulosine, medical treatments have gained particular aspect in treating benign prostate hypertrophy (BPH), in addition to various surgical methods. However, it should be noted that the proper selection of patient has on essential impact on the obtained outcome of medical treatment; as, it is stated in this study that the weight of prostate and the kind of hypertrophy (median or lateral lobes hypertrophy) could have an important effect on the improvement of signs and symptoms of prostate enlargement.

Positive response in the management of BPH following Tamsulosine administration depends on the size of prostate and the type of hypertrophy. It seems that the use of Tamsulosine (a specific α blocker) has no effect in patients with prostate larger than 40 gr, particularly in those with median lobe; but rather, it leads to spending expenses and consuming time of patients and physicians; while, the use of this drug in patients with prostate smaller than 40 gr and with no median lobe could be beneficial. Thus, it is recommended to determine prostate size and the type of hypertrophy by the above mentioned methods before any administration of Tamsulosine.

Conclusion

Determination of prostate size and the type of hypertrophy seems to be essential before any Tamsulosine administration. The weight of prostate is determined by protoscan.

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