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Lee G[1], Joo S[1], Lee Y[1], Lee H N[1], Lee K[1]
1. *Samsung seoul medical center*

TAILORING PHARMACOTHERAPY OF MALE LOWER URINARY TRACT SYMPTOMS WITH A-BLOCKERS, 5-A-REDUCTASE INHIBITORS, AND ANTIMUSCARINICS

Abstract title

Tailoring Pharmacotherapy of Male Lower Urinary Tract Symptoms with α-Blockers, 5-α-Reductase Inhibitors, and Antimuscarinics

Hypothesis / aims of study

Lower urinary tract symptoms (LUTS) are categorized as storage symptoms, voiding symptoms, and postmicturition symptoms. Male LUTS can result from several pathophysiologic conditions and showed different constellation of symptoms. Traditionally, LUTS in men have been attributed to the prostate gland and terms like benign prostatic hyperplasia (BPH). However, there is an increasing understanding that bladder dysfunction may also play a role in the development of LUTS. α-sympathetic blockers (AB) and 5α reductase inhibitors (5ARI) are main pharmacologic agents for the treatment of BPH and anticholinergics are used for the treatment of OAB. Because male LUTS can be caused by several underlying conditions (ex. combination of BPH and bladder dysfunction), combinations of AB, 5ARI and/or anticholinergic is common treatment option in clinical practice. We evaluated the pattern of tailoring and efficacy of several types (monotherapy and combinations) of pharmacotherapy in male LUTS.

Study design, materials and methods

In this retrospective study, clinical data of patients presenting with LUTS attending the outpatient clinic from April 2002 to August 2009 was retrieved from the medical records. Male patients who above 45 years of age presenting with LUTS, started medication in this hospital, and underwent medical treatment over 6 months by single urologist were included. The data obtained included clinical findings, classes of drugs, duration of medical treatment, changes of symptoms, complications, PSA, prostate size and International Prognostic Scoring System/Quality of Life (IPSS/QoL). Men with LUTS caused by any urological malignancy, those who had previous prostatic surgery or pelvic radiotherapy, or complications of urinary obstruction (due to bladder stones, renal failure, recurrent urinary tract infection) were excluded from the study.

Results

A total of 838 patients met the study's inclusion criteria. The mean age of the study population was 63.9 ± 8.0 years and mean follow duration was 37.8 ± 19.0 month. Mean PSA level and prostate size was 2.0 ± 2.6 ng/ml and 32.2 ± 19.0 gm. The 60.6% of the patients (508/838) took monotherapy on initial treatment (Fig. 1). The most common medication of monotherapy were a-blockers (52.0%, 437/838). The remaining 39.4% of patients (330/838) were treated by combination therapy. At the time of their last visit, the 48.6% of patients were treated by monotherapy and 51.3% were treated by combination therapy. In the time of the analysis, 25.6% received only monotherapy and a-blockers were the most commonly prescribed medication, followed by anticholinergics as monotherapy. The 28.2% of patients were treated by the combination of a-blockers with anticholinergics (237/838) and 35.4% of them discontinued anticholinergics (84/237). Patients receiving combination of a-blockers with 5ARI were 24.2% (203/838). 20.2% (41/203) of them discontinue 5ARI and 8.9% (18/203) of them discontinued a-blockers. About half of a-blocker monotherapy group needed combination treatments. With combination therapy of a-blockers and anticholinergics, IPSS improved from 19.5 to 17.5. The combination of a-blockers and 5ARI was of further benefit, improving IPSS from 18.5 to 14.3. The 10.0% of patients had trans-urethral resection of prostate (84/838).

Interpretation of results

About half of the patients with male LUTS were treated with several types of combination treatment. A-blockers were most common medications in the treatment of male LUTS either as a monotherapy or as part of combination therapy. The a-blockers and anticholinergics were most common regimen of combination treatment. About half of patients who were taking an a-blocker and anticholinergics in combination for LUTS discontinued their anticholinergics. IPSS was improved with the change of combinations than monotherapy.

Concluding message

Pharmcotherapy of male LUTS should be tailored by the symptom type and the change of the symptoms during treatment.

Fig1.

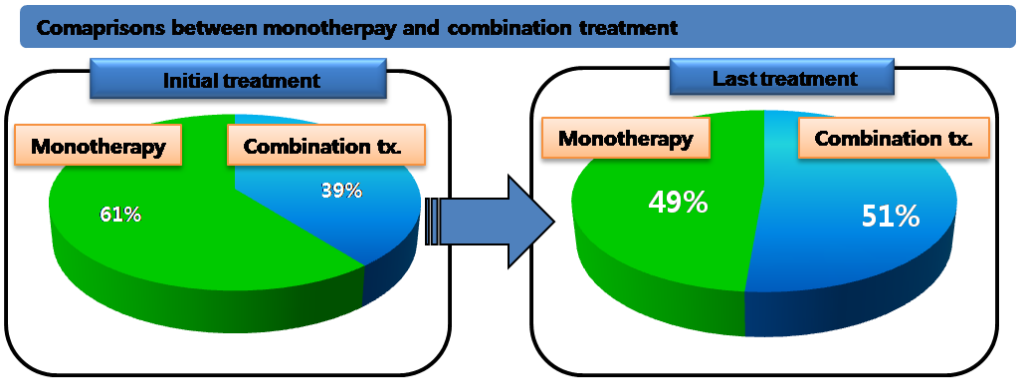
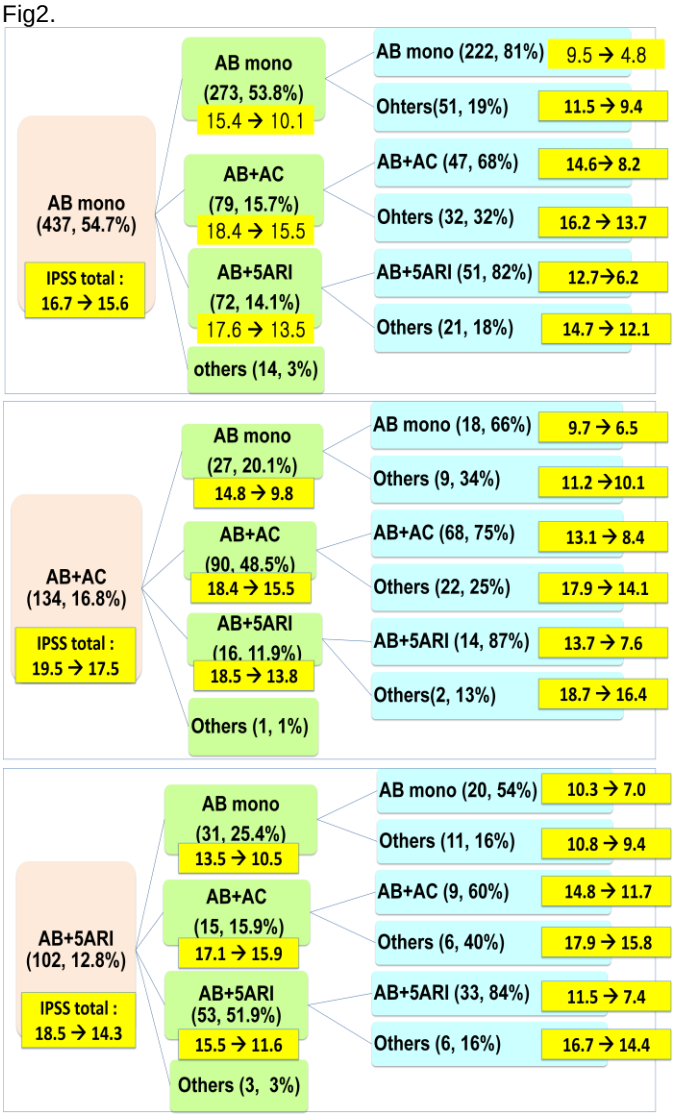


Fig2.



Specify source of funding or grant	none
Is this a clinical trial?	No
What were the subjects in the study?	HUMAN
Was this study approved by an ethics committee?	No
This study did not require ethics committee approval because	this is retrospective study by chart review
Was the Declaration of Helsinki followed?	No
This study did not follow the Declaration of Helsinki in the sense that	this is retrospective study by chart review
Was informed consent obtained from the patients?	Yes