

NON-SURGICAL TREATMENTS FOR BENIGN PROSTATIC HYPERPLASIA

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Abstract: Benign Prostatic Hyperplasia (BPH) is the most common benign neoplasm in men and is a process that is closely related to aging, the presence of sex hormones and genetics. The disease may be associated with significant lower urinary tract symptoms, impacting the quality of life and daily activities of affected individuals. The present study aims to briefly discuss non-surgical measures for the treatment of this disease. This is a review made using PubMed, Scielo, Medline and Google Scholar databases, and the keywords were used for research: treatment and benign prostatic hyperplasia. The scientific articles included were published between 2010 and 2022, and those that were available in full, consistent with the topic of the study. Non-surgical treatment has evolved a lot in recent years, and with that, the number of prostate surgeries has been reduced. The proposal for the treatment of Benign Prostatic Hyperplasia is not only to focus on improving the complaints, but also to try to avoid their progression. First-line drugs for the treatment of BPH are α -blockers, which promote relaxation in the ureteral muscles, and 5- α -reductase enzyme inhibitors, which decrease prostate volume. Studies have shown that the combination of the two drugs makes the treatment more beneficial. Other non-surgical therapeutic measures that can be used are phytotherapies and active observation of the disease. Such measures can significantly improve the quality of life of individuals.

Keywords: Prostatic Hyperplasia. Pharmacological Treatment. Men's Health.

INTRODUCTION

Benign Prostatic Hyperplasia (BPH) prevails in men over 60 years of age, with clinical manifestations associated with obstruction of the lower urinary tract, coursing with oliguria, nocturia, urinary urgency, split jet and hesitation (CARVALHO, 2022).

Therapeutic conduct is conditioned according to the grading of symptoms by the International Prostate Symptom Score questionnaire. Mild symptoms are clinically monitored, moderate cases are submitted to single drug therapy and/or drug therapy, and in refractory cases or when the drug cannot be continued, invasive options must be considered, such as transurethral resection of the prostate and transvesical prostatectomy. Standard management techniques result in harm and undesirable effects such as urinary incontinence, retrograde ejaculation, sexual dysfunction, bleeding complications and urethral stricture. In view of this scenario, studies were initiated for less aggressive alternatives such as thermal or chemical ablative therapies, vaporization, UroLift, lasers and prostatic artery embolization (NUNES, 2021).

Recognizing the feasibility of therapeutic options for BPH offers greater security for the management of the clinical condition of patients with this pathology and, considering the great impact on the patient's quality of life, the objective of this study was to evaluate the use of non-surgical treatments for the HPB.

METHODOLOGY

The present study carried out a bibliographic search of non-surgical treatments for benign prostatic hyperplasia, on Pubmed, Scielo, Medline and Google Scholar, using the following keywords: treatment and benign prostatic hyperplasia. The articles included were published between 2010 and 2022 and those that were available in full, consistent with the theme of the study, and may be original articles, review articles and case reports. Duplicate articles in different databases were excluded.

RESULTS AND DISCUSSION

Benign prostatic hyperplasia (BPH) is

the main alteration that affects the adult male prostate and knowledge of the natural history of BPH influences the perception that treatment must not only address the relief of clinical symptoms, but also aim to prevent progression of the disease. disease (HERNÁNDEZ, 2017).

Among the non-surgical therapeutic options in the treatment of BPH there are: observation, phytotherapy, α -blockers, 5- α -reductase enzyme inhibitors and combined therapy.

Observation is not indicated for all cases, since according to a study by Dornas *et al.*, 2010, the results showed twice as many complications as patients undergoing surgery. Therefore, there are reasons to start observation only in patients with mild symptoms and with preserved quality of life, patients who did not develop clinical complications of BPH and in the reluctance to perform a daily treatment, either because of the cost or the time of use.

Phytotherapy did not present scientific evidence based on clinical studies that show the benefit of its use, among the types of phytotherapy, the most used is the extract of *Saw palmetto*, a species of plant of the botanical genus belonging to the family *Arecaceae* (LEITÃO, 2013). The mechanism of action of these drugs is unknown, concluding that at the moment the role of phytotherapy is still limited.

The α -blockers act in the regulation of smooth muscle tone in the prostate and bladder neck and are critical mediators in lower urinary tract symptoms, explaining their use in the treatment of BPH symptoms (AVERBECK, 2010). Currently, the three most used α -blockers of lower urinary tract symptoms associated with BPH are doxazosin, tamsulosin and alfuzosin, all of which are equally effective in significantly improving symptoms. α -blockers are the first-line choice in the treatment of BPH, but they do not

prevent the progression of the disease, only the relief of symptoms. Drug response is dose dependent with symptomatic improvement in up to four weeks (DORNAS, 2010).

5- α -reductase (5AR) enzyme inhibitors act by inhibiting the conversion of testosterone to dihydrotestosterone. There are currently two medications that act by inhibiting 5AR: finasteride and dutasteride, which act on the atrophy of prostate tissue in the absence of the deleterious systemic effects of hypogonadism. This way, we can show that the mechanism of action goes beyond the relief of symptoms, but also in the prevention of prostate diseases, both benign and malignant (SILVINATO, 2017).

The main side effects of 5AR inhibitors are reduced libido and erectile dysfunction, which decrease over time and are reversible after stopping the drug. These drugs cause prostatic deprivation without causing the unwanted effects of hypogonadism: increased sexual dysfunction, osteoporosis, anemia, among others. Therefore, long-term treatment with 5AR inhibitors leads to a reduction in prostate volume, relief of symptoms and, above all, it reduces the progression of the disease, leaving testosterone at normal or even slightly increased levels (DORNAS, 2010).

Finally, the combination therapy, which combines 5AR inhibitors and α -blockers, acts by quickly relieving symptoms, reducing prostate size and the incidence of disease progression events. A randomized clinical trial that tested the drug finasteride and the α -blocker doxazosin for four and a half years, as monotherapy and combination therapy, had as a most striking result the superiority of the combination therapy from the first year of treatment over both monotherapies (DORNAS, 2010).

However, the data were later reviewed and a stratification according to the prostate volume was applied, concluding that the combination

therapy presented better results in patients with prostate volume above and 40mL. Patients with prostates with volumes less than 25mL had better results using monotherapy with the α -blocker doxazosin (SILVINATO, 2017).

FINAL CONSIDERATIONS

Five therapeutic alternatives for Benign Prostatic Hyperplasia (BPH) were presented, namely: phytotherapy; α -blockers (doxazosin, tamsulosin and alfuzosin); 5- α -reductase enzyme inhibitors (finasteride and dutasteride); combination therapy (5AR inhibitors and α -blockers) and observation.

Therefore, through the International Prostate Symptom Score, it can be seen that drug therapies are reserved for moderate cases, in which there is a decline in the patient's quality of life and a noticeable progression of the disease. Clinical observation is valid for mild cases, without the need for medication.

Thus, it was seen that in moderate cases, herbal medicines still do not have space in the therapy used for BPH, as they still lack

concrete evidence. In these cases, α -blockers are indicated as the first line of treatment, whose function is the symptomatic relief of the patient, with no influence on the evolution of the disease. Yet they are employed with great efficiency.

The main objective of 5- α -reductase inhibitors is to prevent the progression of BPH and, moreover, to promote symptomatic relief. Despite its side effects, it was seen to be highly employable to patients, since these are temporary. Finally, combined therapy, using 5- α -reductase enzyme inhibitors and α -blockers, was given as an excellent route to those with a prostate volume greater than 40mL. On the other hand, patients with a prostate volume less than 25mL are better candidates for monotherapy.

CONFLICT OF INTEREST

There are no conflicts of interest.

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