

SUBSTANTIATION OF THE SEARCH FOR NEW DRUGS FOR THE TREATMENT OF BENIGN PROSTATE HYPERPLASIA

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Introduction. Common knowledge that benign prostatic hyperplasia (BPH) is a benign (noncancerous) increase in size of the prostate. BPH involves hyperplasia of prostatic stromal and epithelial cells, resulting in the formation of large, fairly discrete nodules in the transition zone of the prostate. One of the methods of treatment of BPH is a drug therapy. Drug therapy compared with surgical treatment is safer and with better compliance that determines its relevance.

Aim. The aim of this work is to theoretically justify the prospects for the search and development of new drugs for the treatment of BPH.

Materials and methods. Therefore, the analysis of epidemiological data on the prevalence of BPH and the Ukrainian pharmaceutical market of drugs for the treatment of BPH was conducted.

Results and discussion. Today according to epidemiological studies BPH affects about 210 million males as of 2010 (6% of the population). The prostate gets larger in most men as they get older. For a symptom-free man of 46 years, the risk of developing BPH over the next 30 years is 45%. Incidence rates increase from 3 cases per 1000 man-years at age 45–49 years, to 38 cases per 1000 man-years by the age of 75–79 years. While the prevalence rate is 2.7% for men aged 45–49, it increases to 24% by the age of 80 years. A number of scientists found that the 50% of men aged more than 50 years are suffering from BPH. There is an increase in the prevalence of BPH among men aged 40–49 years from 11.3% to 81.4% men aged 80 years.

Analysis of the ATC classification of medicines Ukrainian pharmaceutical market showed that drugs group for treat BPH (G04C) divided into such groups: G04CA - α -Adrenoceptor antagonists (4 international names and 33 trade names), G04CB - Inhibitors of testosterone 5- α -reductase (2 international names and 12 trade names), G04C X02 – drugs of *Sabalisa Serrulatae* fruit (4 trade names) and G04C X10** - other drugs (20 trade names). These drugs affect the individual links in the pathogenesis of BPH, which contributes to polypharmacy in their therapy.

Conclusions. Medicines that may simultaneously exert anti-inflammatory effects, inhibit 5- α -reductase (the enzyme that converts testosterone into a more active dihydrotestosterone, spsobstvuschy prostate growth), to restore the activity of sperm, inhibiting dysuria and pain, increases the potency, eliminate symptoms of voiding, is absent in the Ukrainian pharmaceutical market. Therefore, the search and creation of new drugs for the treatment of BPH, which can affect the entire pathogenesis of this disease, is promising.