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# Evaluation of clinical effectiveness of Deprivoks for correction of psychopathological manifestations in patients with chronic prostatitis

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We analyzed the characteristics of clinical course of psychopathological symptoms in patients with chronic prostatitis and studied the effectiveness of the drug Deprivoks to correct the detected changes. Found that the drug has a positive effect on the removal of psychopathological symptoms in these patients.

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*Keyword:* Chronic Prostatitis, Psychiatric Manifestations, Deprivoks, Treatment.

### 1. Introduction

The chronic lesion of the prostate is one of the most common disorders in men. According to the investigations of some experts from 9 to 35% of men suffer from chronic prostatitis [1, 2, 4, 7, 9]. Prostatitis affects mainly men of young and middle age, who are most sexually active and often is complicated by the violation of copulative and reproductive function [6, 10].

According to the various authors, 20 - 70% of patients with chronic prostatitis have various mental disorders that impair the clinic disease [3, 5, 8]. It determines not only medical but also social significance of the problem of study and treatment of mental disorders in the prostatitis. Mental disorders in the prostatitis can be caused by both somatic factors (inflammation, intoxication, pain, discomfort in the pelvic area, endocrine changes) and psychogenic (reaction of the person to the disease, its symptoms and situation associated with it). Without a doubt, changing of psycho-physiological characteristics of patients associated with the original, premorbid psycho-physiological level. Premorbideis usually associated with sexual

constitution and characteristics of psychosexual development. Some authors consider the chronic prostatitis as "psychosomatic illness", as a person who suffers from this disease has vivid changes in psychological status.

Significant spread of psychopathological symptoms in patients with chronic prostatitis requires more complete study of the functional state of the organism. An indicator of the functional state of the organism can be considered the research and analysis of heart rate variability (HRV). The research of HRV allows to examine the state of neurovegetative background in the development of psychopathological symptoms and condition of the indices of vegetative homeostasis and vegetative supply [11].

The aim of our study was to investigate the characteristics of the clinical course of psychopathological symptoms in patients with chronic prostatitis and efficacy of the drug Deprivoks (fluovoksamin) to correct the identified changes.

## 2. Materials and Methods

We treated and supervised 167 patients with chronic prostatitis. The average age of patients was  $28,3 \pm 3,5$  years (from 19 to 46 years), disease duration is from 8 months to 5 years (mean  $3,8 \pm 1,2$  years). Clinical examination included a general clinical examination, research and study of neurological status of the autonomic nervous system. Diagnosis is verified basing on digital examination of the prostate, prostatitis history, and laboratory tests: a) emission analysis of prostate; b) the study of discharge from the urethra to the specific and nonspecific flora c) microbiological research of prostate emission and ultrasound of prostate. It was also conducted surveys upon request and during treatment according to modified international system of assessment of symptoms in diseases of the prostate and quality of life. Quality of Life or completeness of life senses is one of the relatively recent practices of going into the existing subjective criteria of severity long pathological processes, which help to evaluate the relevance and value of the chronic inflammation of the prostate gland for the patient.

Heart rate variability was studied in the machine "Electrocar" SPA "Metekol" Ukraine. Calculated spectral indices of heart rate: TR-measure of overall heart rate variability, variation of N-N intervals for 5 min. in the frequency range to 0.4 Hz; high-frequency component of HRV HF  $\text{ms}^2$  in range 0,15-0,4 Hz; low-frequency component of heart rate LF  $\text{ms}^2$ -power in the low frequency range - 0,04-0,15 Hz; power range of very low frequency VLF  $\text{ms}^2$  - less than 0.04 Hz, reflecting the low-frequency component of HRV. We calculated the LF / HF - ratio of low-and high-frequency components, as an indicator of the balance of sympathetic and parasympathetic divisions of the autonomic nervous system.

54% (90 patients) had different mental disorders. Patients who were found psychopathological manifestations were divided into two groups. The first group consisted of 30 patients and was treated by conventional schemes (antibacterial, anti-inflammatory drugs, alpha-1 - blockers, Enzyme, physiological procedures and massage of the prostate gland). The second group of 35

patients who, in addition to the treatment was treated by drug Deprivoks (fluovoksamin) (Company "StadaArzneimittel AG", Germany) at a dosage recommended by the manufacturer – 50 mg once a day for a week, and then 100 mg once daily for 1 month.

In the first phase of rehabilitation after exploring the sick was widely used rational psychotherapy.

## 3. Results and Discussion

In the group of patients who were found psychopathological manifestations in 78% of patients experienced depressive asthenic syndrome. They complained of difficulty falling asleep, superficial, restless sleep, in the morning they do not feel alert, during the day there remains drowsiness, weakness. The efficiency decreases, there is fatigue, weakness. Often it is observed temper, irritability, conflict. In our opinion, these manifestations are more related to pain process which is one of its manifestations (the so-called "common symptoms"). In 20% of patients the discomfort acquired an unusual character - pain "in the form of spots on the coccyx," the head of the penis as if "ring belted", in the prostate gland "something is compressed, crackling", "gurgles as if bubbles burst." In the area of the anus there is a feeling of a foreign body. These bright, unusual sensations associated with involvement in the inflammatory process sensory and autonomic entities, which are a lot in the prostate and surrounding tissues. Discomfort, pain is a constant reminder of the suffering patient and can serve as a cause of mental disorders.

32% of patients noting the weakness of erection, fast and painful ejaculation, decreased libido, began to think about the possible occurrence of impotence, the fact that "male power is running low" that they will not have children. Checking themselves in sexual intercourse they inclined to think about their inferiority. After a period of reduced potency in 21% of patients have obsessive fears, fear of failure during sexual intimacy. Such experiences inhibit erection leading to shortening intercourse. There is a "vicious circle" which leads to the formation of

compulsive disorder syndrome that resembles neurosis expectations.

18% of patients started thinking about cancer disease, noting "unusual pain," finding "seal", worried that they will have mutilating surgery or possible death.

26% of patients noting mucous or muco-purulent discharge from the urethra began to think that they are suffering from venereal disease. They thought constantly about possible contamination, tried to blame the "infidel women." They were afraid of their suffering could come to publicity and subsequent judgment of their friends and family. After considerable variations they applied to venereologist, but a negative test result did not dispel the doubts.

These feelings do not go beyond the various manifestations of prostatitis they are closely related to the pattern of disease, do not have clearly absurd character, fit into the structure of hypochondriacal syndrome and its variants (asthenic-hypochondriacal, antenna-depressive, algio-hypochondriacal, anxious and hypochondriacal). 38% of patients have begun to pay more attention to their health, studying professional literature, often, concluding that the disease is severe, incurable. Manifestations of the disease served as a pretext for doubt in the correctness of diagnosis. They wanted to be tested with other specialists. 28% of patients required a certain treatment, displaying a considerable persistence.

Careless statements of physician about the presence of seals, the need for treatment to prevent impotence can exacerbate psychiatric symptoms. At clinical examination, in addition to the above, were the typical complaints of discomfort in the urethra, urethral discharge of muco-pus and mucous character, usually in the morning, little vague pain in the perineum, scrotum, groin and sacral region, abdomen. Disuria disorders (frequent urination, feeling of incomplete emptying of the bladder) were found in 42% of patients. Palpation of the prostate gland in most patients showed that it was raised sensitive, painful, slightly raised, compact consistency, tense.

After treatment in the second group of patients who received the drug Deprivoksthe symptoms of depressive-asthenic syndrome decreased from 78% to 18%, and patients of the first group only to 56%.

We should note that in all patients after treatment standard therapy observed a moderate, but using Deprivoksu - quite a significant reduction in percent signs of major psychopathological symptoms.

Thus, the survey shows in the first group of patients in IPSS total score before treatment was  $26,4 \pm 0,31$ ; assessment of quality of life index  $L = 4,2 \pm 0,05$ ; overall score on the sum of points  $(S + L) = 30,6 \pm 0,3$ . After 15 days of treatment: IPSS =  $18,2 \pm 0,18$ ;  $L = 3,8 \pm 0,054$  and  $(S + L) = 22,0 \pm 0,2$ . After 30 days of treatment: IPSS =  $9,6 \pm 0,05$ ;  $L = 2,2 \pm 0,005$  and  $(S + L) = 11,8 \pm 0,1$ .

In the second group of patients, together with a comprehensive therapy and received Deprivoks in IPSS total score before treatment =  $27,2 \pm 0,28$ ; assessment of quality of life index  $L = 4,3 \pm 0,05$  and to assess overall point total  $(S + L) = 31,5 \pm 0,26$ . After 15 days of treatment: IPSS =  $12,8 \pm 0,1$ ;  $L = 2,8 \pm 0,05$  and  $(S + L) = 15,6 \pm 0,2$ . After 30 days of treatment: IPSS =  $2,6 \pm 0,05$ ;  $L = 1,8 \pm 0,05$  and  $(S + L) = 4,4 \pm 0,05$ .

Under the influence of the use of Deprivoks in the second group of patients, we observed the increase in total HRV power spectrum ( $4274,6 \pm 111,3 \text{ ms}^2$ ) versus ( $4090,4 \pm 126,2 \text{ ms}^2$ ) before the treatment. Clinostatic TR index increased from  $2952,9 \pm 158,4$  to  $3427,9 \text{ ms}^2$  and orthostatic - from  $3650,2 \pm 152,3$  to  $3435,7 \pm 147,5 \text{ ms}^2$  ( $p < 0,05$ ). We noted changes in the power spectrum of very low frequency - VLF. Clinostatic VLF before treatment was within  $1223,6 \pm 61,2 \text{ ms}^2$  after treatment was  $1294,7 \pm 63,9$ , orthostatic VLF was  $1264,1 \pm 52,0$  before treatment and  $1307,4 \pm 41,7 \text{ ms}^2$  after treatment. Describing the high-frequency component of the spectrum of HF in patients of the second group we also noted its growth after treatment with Deprivoks. Thus, the use of the drug Deprivoks in patients with chronic prostatitis with psychopathological manifestations allows making the correction of these symptoms and SCD in most patients. This is achieved by balancing the

activity of the sympathetic and parasympathetic parts of the HRV.

Side effects while using this drug were not detected.

#### 4. Conclusions

Using the drug Deprivoks (flyuvoksamin) in complex treatment of patients with chronic prostatitis with psychopathological manifestations will contribute the improvement of the treatment of such patients.

#### 5. References

1. Analysis of heart rhythm variability in clinical practice / O. Korkushko, A.V.Pisaruk, V.B.Shatylo etc. - K. Alkon, 2002. - 190S.
2. E. Arnold. K. Chronic prostatitis. - Rostov-on-Don: Phoenix, 1999.-320p.
3. Gorpinchenko I.I., Sokolov M.N. Sexual Health and Neuroses // Healthy men. - 2005. - № 3. - P. 53-56.
4. Dzyurak V.S.Sapsay V.I., Sapsay A.V.Boiko A.I. Chronic prostatitis. - K.: "Hodak" 2003. - 124s.
5. Kochetov A.G., Golubchikov V.A., Ivanov A.A., and others Psycho-physiological qualities of patients with chronic prostatitis // Urolohyya. - 2003. - № 5. - P.26-31.
6. Lytvynets E.A. Current views on the pathogenesis, diagnosis and medical impact areas in patients with chronic prostatitis // Galician drug Gazette. - 2004. - № 4. - P. 114-118.
7. Molochkov V.A.Ilyina I. Chronic urogenous prostatitis. - Moscow: Medicine, 1998. - 303 p.
8. Tkachuk V.N. Gorbachev A.G., Ahulyanskyy L. I. Chronic prostatitis. -L.: Medicine, 1989. - 208c.
9. Doble A. Chronic prostatitis // British Journal of Urology. - 1994. - V. 74, N 5. - P. 537-541.
10. Ludwig M., Weidner W. Prostatitis // Therapeutische Umschau. - 1995. - Bd 52, N 6. - S. 367-373.