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Influence of the lifestyle of a patient with chronic prostatitis on its quality

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Introduction. Currently, the quality of life of the patient is regarded as a primary criterion and is certainly assessed as an important parameter of the overall effectiveness of treatment.

Purpose of the study. To assess the quality of life and the severity of symptoms in young active men with chronic abacterial prostatitis IIIa category.

Materials and methods. 105 patients were divided into two groups: the 1st is mobile, who had 15 and more air flights during the year, and the 2nd is not mobile. Quality of life and symptoms were assessed using the National Institutes of Health-Chronic Prostatitis Symptom Index (NIH-CPSI) scale. Additionally, the quality of life was assessed by the adapted MOS SF-36 questionnaire.

Results. Patients whose work was associated with frequent business trips showed more intense pain and therefore lower quality of life. The total score on the scale of chronic prostatitis symptoms in mobile patients was also one and a half times higher. They significantly more often relapse of the disease developed.

Conclusion. Frequent flights affect the symptoms of chronic prostatitis negatively. Additional research is needed to find methods for correcting this aggravating factor.

Key words: chronic prostatitis; the quality of life; symptoms

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Влияние образа жизни больного хроническим простатитом на её качество

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Введение. В настоящее время качество жизни пациента выходит на первый план и непременно оценивается как важные параметр общей эффективности лечения.

Цель исследования. Оценить качество жизни и выраженность симптомов у молодых активных мужчин, больных хроническим бактериальным простатитом категории IIIa.

Материалы и методы. 105 пациентов были распределены в две группы: 1 — мобильные, которые совершали в течение года 15 и более авиаперелетов, и 2 — не мобильные. Качество жизни и симптомы оценивали по шкале National Institutes of Health-Chronic Prostatitis Symptom Index (NIH-CPSI). Дополнительно качество жизни оценивали по адаптированной анкете MOS SF-36.

Результаты. Пациенты, чья работа была связана с частыми командировками, продемонстрировали более интенсивную боль, более низкое качество жизни. Сумма баллов по шкале симптомов хронического простатита у мобильных пациентов также была в полтора раза выше. У них достоверно чаще развивались обострения заболевания.

Заключение. Частые авиаперелеты негативно влияют на симптоматику хронического простатита. Необходимы дополнительные исследования, направленные на поиск методов коррекции этогоотягающего фактора.

Ключевые слова: хронический простатит; качество жизни; симптомы

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Introduction

Although a true rate of chronic prostatitis is unknown, its share in the structure of urologic applications for medical help to commercial medical centres reaches 17.7% (42.3% among patients with urogenital infections) [1]. The main symptoms of chronic prostatitis (pain, sexual dysfunction, dysuria) exhaust a patient decreasing his/her quality of life. All the inventories used for the evaluation of the symptoms in patients with chronic prostatitis have a section “Quality of Life”. The standard inventories International Prostate Symptom Score (IPSS) and National Institutes of Health Chronic Prostatitis Symptom Index (NIH-CPSI) have sections for self-evaluation of the quality of life in general ranking from “perfect” to “unbearable”. The inventories include such questions as “How often have symptoms prevented you from doing your routine activities this week (work, leisure activities, etc)?”, “How often have you thought about the symptoms you have this week?”. However, the authors believe that these questions do not provide sufficient information on the quality of life.

In clinical medicine, there are special inventories for the evaluation of the quality of life but they are complicated and not suitable for patients with chronic prostatitis.

The present study aimed to evaluate the quality of life depending on the quality of life of young active men with chronic abacterial category IIIa prostatitis by the adapted inventory for the evaluation of the quality of life MOS SF-36.

Materials and methods

The study included 105 patients that were divided into two groups: Group I included mobile patients that had 15 and more air trips per year

(49 patients) and Group II included non-mobile patients (56 patients). Patients from Group II were men whose activity did not involve such additional loads as jet lags, ionizing radiation, and other negative factors associated with air trips, i.e. office workers, low and mid-level managers, sales managers, etc.

Study inclusion criteria:

1. Chronic category IIIa prostatitis in the acute phase confirmed by 15 and more points by the NIH-CPSI scale and the presence of 15 and more leucocytes in the prostate fluid during light microscopy of a direct smear.
2. Socially successful men.
3. Age: 35 – 45 years old.
4. Signed informed consent.

Study exclusion criteria:

1. Social maladjustment (no permanent job, no accommodation).
2. Drug addiction.
3. Alcohol abuse.
4. Chronic somatic diseases with often relapses (chronic obstructive lung disease, chronic hepatitis, hypertonic disease).
5. Endocrinal diseases.
6. Organ failure.
7. Oncologic diseases.
8. Depression and any psychic diseases.
9. Syndrome of chronic pain of other than prostatic localization.
10. Sexually-transmitted diseases and any other infections.
11. Pathogenic microflora (10^2 and more in the titer) revealed in the prostatic fluid.

Patients were asked to use a visual-digital scale for the self-evaluation of their general perception of health, interpersonal relationships, physical activity, social activity, and sexual function. The perfect quality of life by all the parameters was scored

5 points and unbearably bad — 25 points. Besides, the authors retrospectively accounted for the number of episodes of chronic prostatitis acute relapse within a year.

The statistical processing of the results was performed using a PC and the statistical software programs Microsoft Excel 2007 and Statistica for Windows 6.0. The authors estimated the arithmetic mean (\bar{x}), mean arithmetic deviation ($\bar{x}-x$), mean square deviation (σ), and relative error of the mean (m). To solve the issue of accidental discrepancies of the mean values (relative), the authors calculated the mean error of the mean difference. The obtained results were presented as the mean \pm error the mean ($M \pm m$). Further, the authors compared the mean values of the selections (M1 and M2), calculated Student's t -test, and evaluated the significance of p . The differences were statistically significant at $p < 0.05$.

Results

The intensity of symptoms and quality of life of patients evaluated by the NIH-CPSI inventory depending on the lifestyle is presented in Table 1.

Patients, whose work was associated with often business trips had more intensive pain and lower quality of life. The total score by the scale of symptoms of chronic prostatitis in mobile patients was also 1.5 times higher than in non-mobile. The authors revealed a statistically significant difference in the rate of relapses. Patients with often air trips had chronic prostatitis relapses 1.5 times more often than non-mobile patients.

A more detailed analysis of the quality of life did not reveal significant differences in the score between the groups (Table 2).

Discussion

Currently, the quality of life of a patient is regarded as a primary criterion and is certainly assessed as an important parameter of the overall effectiveness of treatment. A.Z. Vinarov and R.V. Rozhivanov showed that the application of testosterone containing gel (AndroGel®) in patients with chronic prostatitis with androgen deficiency significantly improved their quality of life [2]. R. Mandar Mandar et al. [3] highlighted the negative influence of chronic prostatitis on the quality of life of patients and their families.

Experts in prostate treatment [4] also draw attention to the quality of life of patients with chronic prostatitis. The modern approach to the evaluation of the symptoms is based on the system UPOINTS (U — urological, P — psycho-social, O — organ-specific, I — infection, N — neurological, T — muscle tension and tenderness, and recently added domain S — sexuality). The impact of the domain "P" is quite significant. A patient with chronic prostatitis can have depression because of the disease, which sharply decreases the quality of life.

Dybowski et al. analyzed the results of a 12-month prospective study on the evaluation of predictors of the quality of life worsening in patients with chronic pelvic pain and concluded that the baseline depressive and anxious condition of a patient led to a more expressed decrease in the quality of life after the development of chronic prostatitis [5].

The revealed differences in the intensity of symptoms of chronic prostatitis and the quality of life of patients depending on their lifestyle demonstrated a new area of interest for a doctor in making a treatment plan for such patients.

Table 1. The index of chronic prostatitis symptoms and quality of life according to the NIH-CPSI inventory (n = 105)
Таблица 1. Индекс симптомов простатита и качество жизни по шкале NIH-CPSI (n = 105)

Domain Домен	Group I (n = 49) 1 группа (n = 49)	Group II (n = 56) 2 группа (n = 56)	p
Pain Боль	18.1 \pm 1.16	10.5 \pm 2.01	< 0.05
Dysuria Нарушения мочеиспускания	5.6 \pm 0.57	5.0 \pm 1.01	> 0.05
Quality of life Качество жизни	11.5 \pm 1.12	7.4 \pm 1.32	< 0.05
Total Сумма баллов	35.2 \pm 1.96	22.9 \pm 2.14	< 0.05
Relapses frequency for one year Частота рецидивов в течение года	8.9 \pm 0.21	5.7 \pm 0.19	< 0.05

Table 2. Quality of life of patients with chronic abacterial prostatitis IIIa category according to the adapted MOS SF-36 inventory (n = 105)

Таблица 2. Качество жизни у больных хроническим абактериальным простатитом категории III-а по адаптированной анкете MOS SF-36 (n = 105)

Domain Домен	Group I (n = 49) 1 группа (n = 49)	Group II (n = 56) 2 группа (n = 56)	p
General health perception Общее восприятие здоровья	4.6 ± 0.47	4.2 ± 0.63	> 0.05
Interpersonal relationships Межличностные взаимоотношения	5.1 ± 0.97	4.4 ± 0.69	> 0.05
Physical activity Физическая активность	3.4 ± 0.29	3.3 ± 0.87	> 0.05
Social activity Социальная активность	3.1 ± 0.70	3.6 ± 0.98	> 0.05
Sexual function Сексуальная функция	2.8 ± 0.14	2.7 ± 0.63	> 0.05
Total Сумма баллов	19.0 ± 0.98	18.2 ± 0.57	> 0.05

Conclusion

Frequent flights and jet lag negatively affect the symptoms of chronic prostatitis. Additional research

is needed to develop methods for correcting this aggravating factor.

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