

CLINICAL, ANAMNESTIC, LABORATORY AND INSTRUMENTAL FEATURES OF CHRONIC PROSTATITIS DEPENDING ON AGE



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ЁШГА БОҒЛИҚ РАВИШДА СУРУНКАЛИ ПРОСТАТИТНИНГ КЛИНИК – АНАМНЕСТИК, ЛАБОРАТОР, ИНСТРУМЕНТАЛ ЎЗИГА ХОС ХУСУСИЯТЛАРИ

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КЛИНИКО-АНАМНЕСТИЧЕСКИЕ, ЛАБОРАТОРНЫЕ И ИНСТРУМЕНТАЛЬНЫЕ ОСОБЕННОСТИ ХРОНИЧЕСКОГО ПРОСТАТИТА В ЗАВИСИМОСТИ ОТ ВОЗРАСТА

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Резюме. Мақола сурункали простатитнинг ёшга боғлиқ клиник, анамнестик, лаборатор ва инструментал хусусиятларини ўрганишга бағишланган. Тадқиқот натижаларига кўра, патология ёш, ўрта ва кексайган беморларда турли хил белгилар билан намоён бўлади. Ёшга хос ўзгаришлар, ҳамроҳ касалликлар ва инфекцион ҳолатга алоҳида эътибор қаратилиб, диагностика ва даволашда комплекс ёндашувнинг аҳамияти таъкидланган.

Калит сўзлар: сурункали простатит, ёшга хос хусусиятлар, клиник белгилар, инфекцион ҳолат, ҳамроҳ касалликлар.

Abstract. The article examines the clinical, anamnestic, laboratory, and instrumental features of chronic prostatitis depending on age. It was found that the pathology manifests with varying frequency and symptom characteristics in young, middle-aged, and elderly patients. Special attention is paid to age-related changes, comorbidities, and infectious status, emphasizing the importance of a comprehensive approach to diagnosis and treatment.

Keywords: chronic prostatitis, age-specific features, clinical symptoms, infectious status, comorbidities.

The prostate gland remains a key organ of the male body, playing a vital role in the functioning of the reproductive system [3, 7, 9, 15,16]. However, according to statistics, prostate pathologies significantly affect the general health and quality of life of men. Among them, chronic prostatitis (CP) occupies a special place, attracting increasing attention of the medical community [1, 5, 10, 14,17,20]. In terms of frequency of occurrence, prostatitis is second only to benign prostatic hyperplasia and prostate cancer, ranking third in the structure of diseases of this organ. World statistics show that about 8.2% of men face this disease, and every second man experiences pain due to prostatitis during his life [4, 8, 11, 12,18]. Although chronic prostatitis does not pose an immediate threat to life, it is accompanied by such clinical manifestations as erectile dysfunction, urination disorders and localized pain in the perineum or testicles, which significantly reduces the quality of life of patients [2, 6, 13,19,21].

Purpose of the study: to study the clinical and anamnestic features of chronic prostatitis in a comparative aspect at different ages.

Materials and methods of research: To carry out this research work, 111 men with chronic prostatitis who

applied to the urology department of the Bukhara Regional Multidisciplinary Medical Center were examined in the period from 2023 to 2024. The diagnosis was established based on clinical and functional data in accordance with the international consensus on the diagnosis and treatment of urological diseases (ICD-10). The diagnoses were verified based on a thorough collection of anamnesis, clinical, laboratory (general blood test, urine test), biochemical blood test, instrumental (ultrasound, CT, MRI). Particular attention was paid to the duration of the pathological process, past and concomitant diseases.

Research results and their discussion: Analysis of data on the distribution of patients with chronic prostatitis shows that the largest proportion of patients (40.5%) are young men under 44 years of age. This indicates a pronounced tendency for the pathology to become younger, which is probably due to the modern lifestyle, including sedentary lifestyle, chronic stress, changes in sexual behavior and exposure to infectious factors. Young patients are becoming a new key risk group, which requires special attention from doctors and researchers.

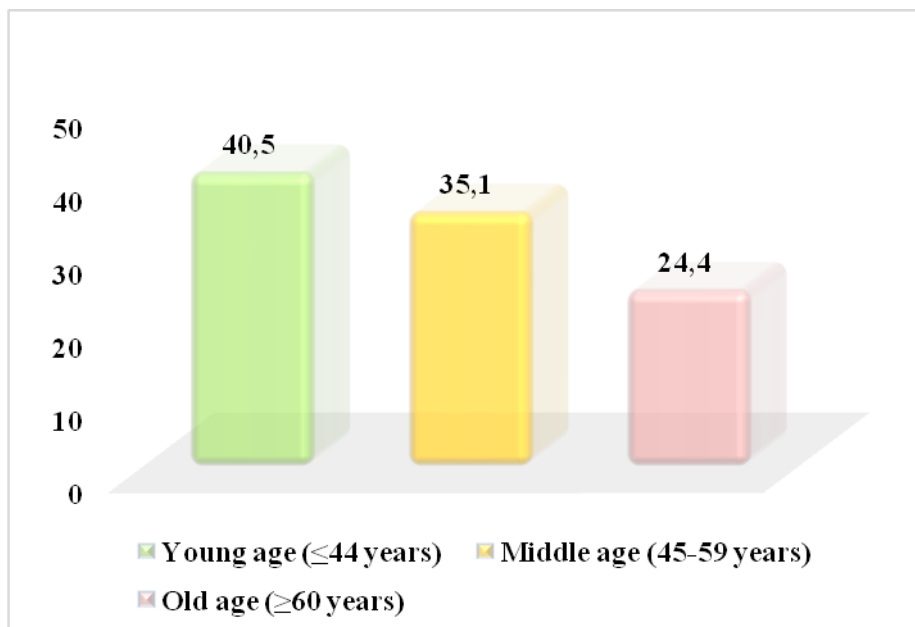


Fig. 1. Age of examined patients with chronic prostatitis (%), ($P \leq 0.05$)

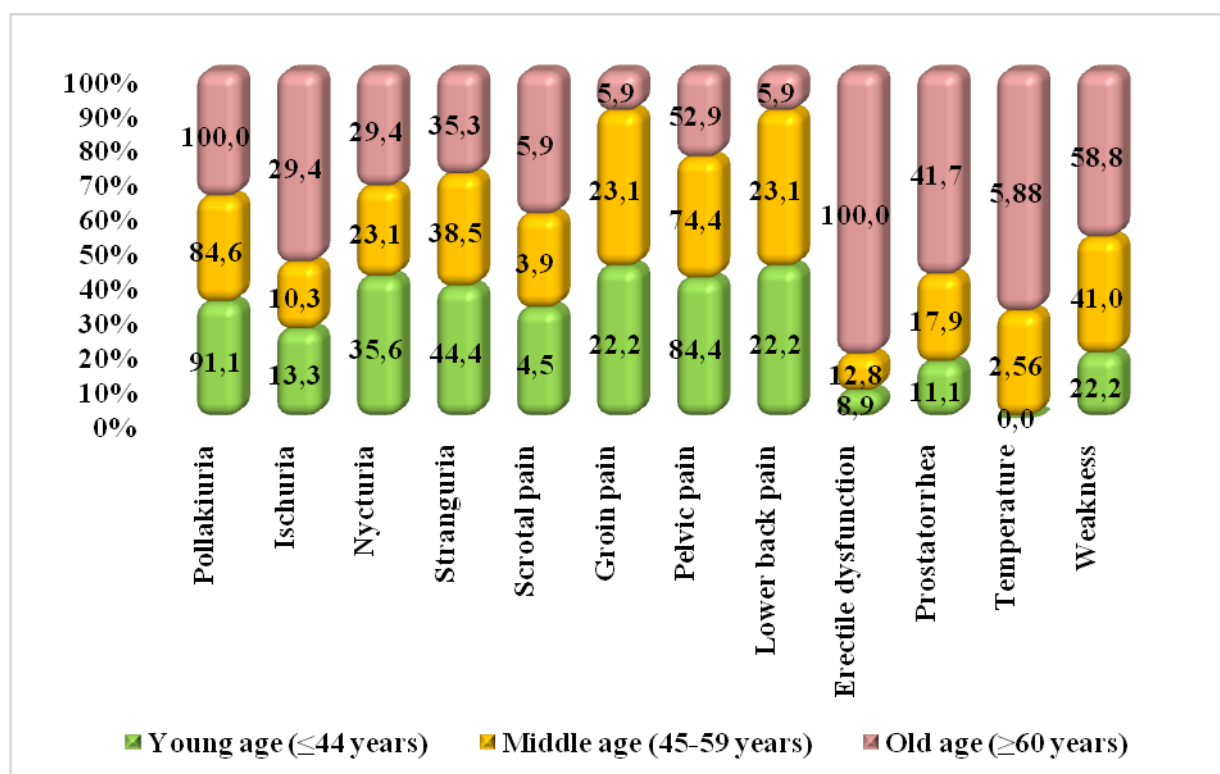


Fig. 2. Analysis of complaints of the examined groups (%), ($P \leq 0.05$)

According to the World Health Organization (WHO), the classification of people's ages is divided into three groups: Young age: 18-44. Middle age: 45-59. Elderly people: 60-74. Based on the data obtained during the analysis of age composition, the following groups were formed:

- 1st young age group - 45 men with chronic pancreatitis (40.5%).
- 2nd group average age – 39 men with CP (35.1%).
- 3rd group elderly - 27 men (24.4%).
- comparison group - 20 healthy men appropriate age.

In the age group of 45–59 years, chronic prostatitis is diagnosed in 37.9% of patients, which confirms the rele-

vance of the problem for middle age. The consistently high incidence rate in this group may be associated with the accumulation of risk factors, such as hormonal changes, chronic inflammatory processes.

In elderly men over 60 years of age, the proportion of patients with chronic prostatitis is significantly lower and amounts to 16.5%. (Fig. 1).

The American National Institute of Health distinguishes 4 categories of prostatitis:

- Acute prostatitis (Category I) (n=0)
- Chronic bacterial prostatitis (Category II) (n=47)
- Chronic prostatitis/Chronic pelvic pain syndrome (Category III) (n=25)

- Asymptomatic chronic prostatitis (Category IV) (n=39)

Analysis of complaints of patients with chronic prostatitis shows that pollakiuria is the most common symptom in all age groups, reaching 100% in elderly men. In young patients (≤ 44 years), pelvic pain (84.4%) and stranguria (44.4%) predominate, indicating a more active inflammatory process. In middle-aged men (45–59 years), the symptoms become less localized, but remain highly frequent, including pelvic pain (74.4%) and weakness (41%). In elderly patients (≥ 60 years), urological symptoms such as pollakiuria and ischuria, as well as erectile dysfunction (100%), predominate. These data emphasize the importance of an age-specific approach to diagnosis and treatment, taking into account specific manifestations in each age group (Fig. 2).

Analysis of concomitant pathology in patients with chronic prostatitis demonstrates a pronounced age dependence of a number of diseases. Hypertensive heart disease becomes the most common pathology in elderly patients (≥ 60 years), reaching 100%, while in young patients (≤ 44 years) its share is 33.3%, and in middle-aged patients (45–59 years) – 53.8%. Ischemic heart disease (IHD) also increases with age: from 11.1% in young patients to 30.8% in middle-aged patients and 94.1% in elderly patients, which indicates the role of vascular changes and chronic inflammation in its development.

Gastrointestinal tract (GIT) diseases are common in all age groups, increasing from 37.8% in young patients to 64.1% in middle-aged patients and 76.5% in the elderly. This emphasizes the importance of GIT pathology, especially in older age, which may be associated with chronic inflammation and age-related changes. ENT diseases are more common in young patients (20%), somewhat less common in middle-aged patients (12.8%), but again increase in the elderly (58.8%), which may be associated

with weakened immunity and chronic inflammatory processes.

Anemia is observed in 4.44% of young patients, its frequency decreases to 2.56% in middle-aged patients and 7.4% in elderly patients, which indicates possible inflammatory changes or deficiency conditions associated with age. The frequency of endocrine disorders is 4.44% in young patients and remains at this level in middle-aged patients (5.12%), but in elderly patients it increases to 11.1%, which reflects the influence of age-related hormonal changes (Fig. 3).

Analysis of the infectious status of patients with chronic prostatitis shows age differences in the incidence of sexually transmitted infections. The highest frequency of infection detection is observed in young patients (≤ 44 years), which is associated with higher sexual activity and an increased risk of infection. For example, *Ureaplasma urealyticum* is more often diagnosed in young patients (13.3%) compared to middle-aged (7.69%) and elderly (7.41%) patients. A similar trend is observed for *Mycoplasma hominis* (8.89% in young patients versus 2.56% in middle-aged patients and 3.70% in elderly patients) and toxoplasmosis (11.1% in young patients, 5.13% in middle-aged patients and 3.70% in elderly patients).

Genital herpes (Herpes simplex type 2) is most common in young people (46.7%) and is less common in middle-aged (35.9%) and elderly (14.8%) patients, which is associated with sexual activity at a young age. Chlamydia infection (*Chlamydia trachomatis*) and human papillomavirus (HPV) are also more common in young people (20.0% and 22.2%, respectively), gradually decreasing in middle-aged (15.4% and 10.25%) and elderly (11.1% and 7.40%). Mixed infections (Mix infection) remain relevant mainly for young patients (26.7%) and are less often diagnosed in middle-aged (12.8%) and elderly (11.1%) (Fig. 4).

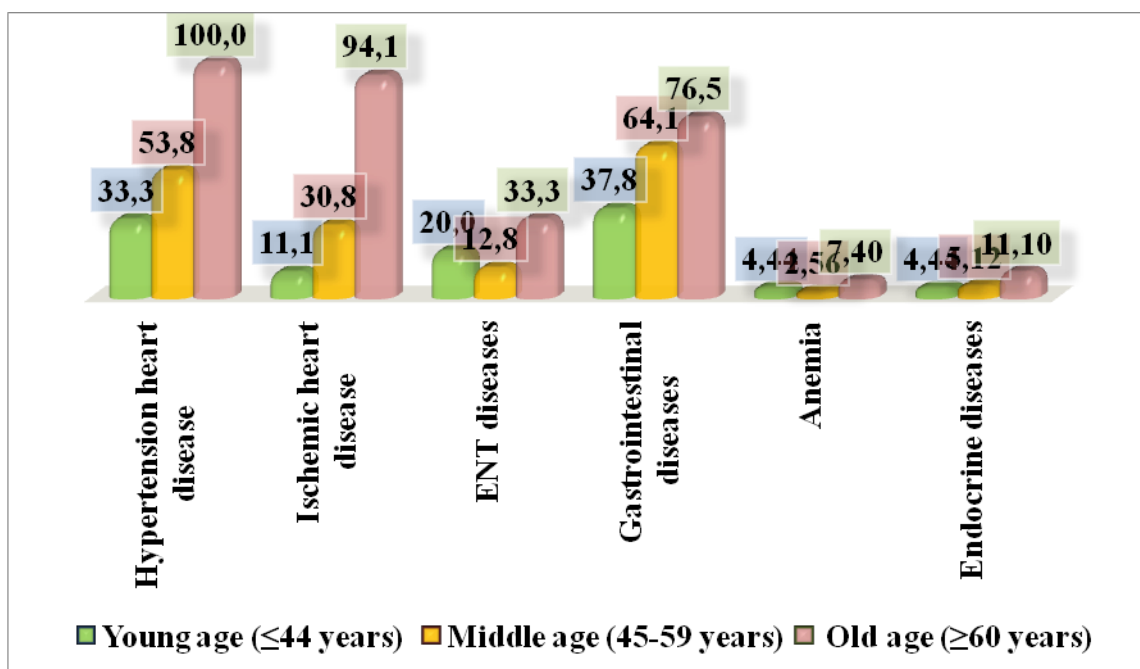


Fig. 3. Analysis of concomitant pathology examined groups (%), ($P \leq 0.05$)

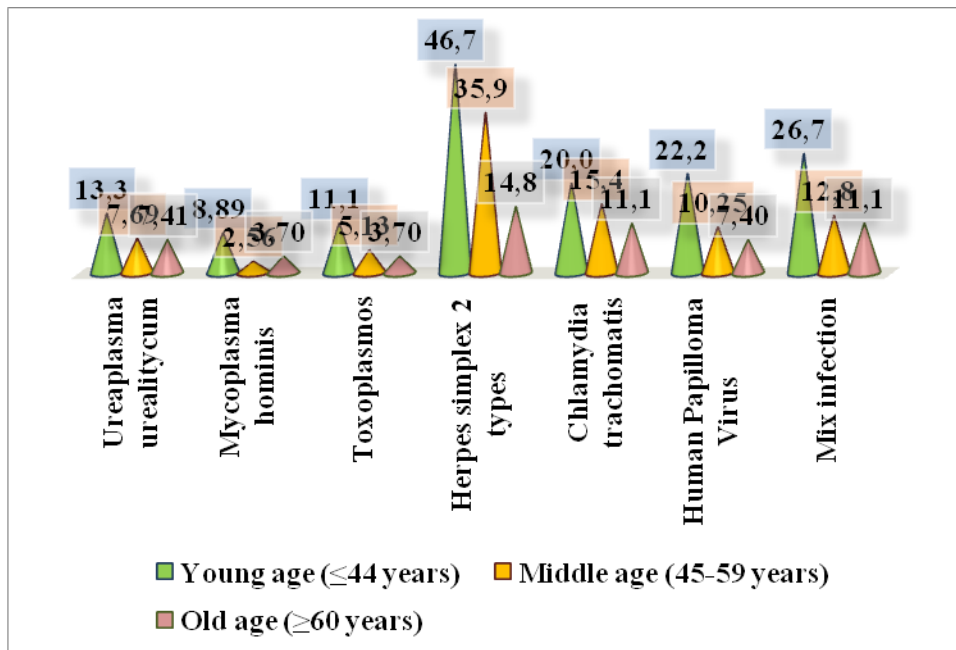


Fig. 4. Characteristics of infection status (%), (P<0.05)

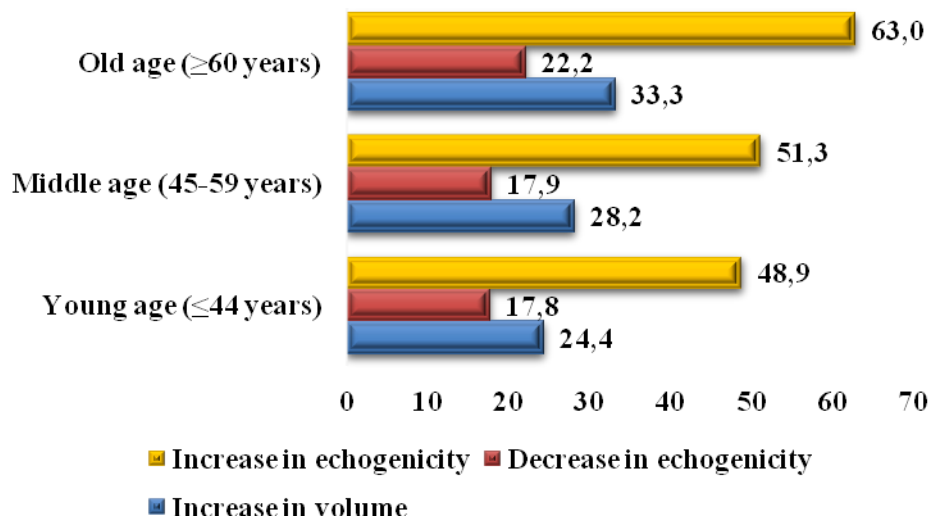


Fig. 5. Ultrasound data in examined patients with chronic prostatitis (%)

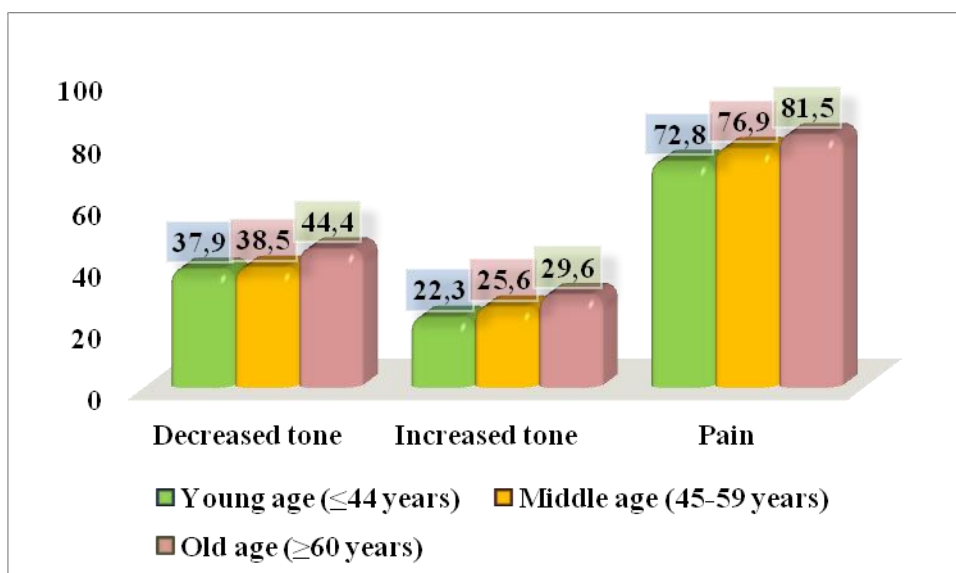


Fig. 6. Analysis of rectal examination in patients with chronic prostatitis (%)

The infectious status of patients with chronic prostatitis highlights the high frequency of sexually transmitted infections in young men. This requires active implementation of preventive measures, including promotion of safe sexual behavior, use of barrier contraception, and vaccination, especially against human papillomavirus. In middle-aged and elderly patients, the frequency of infections decreases, which is associated with changes in sexual behavior and decreased activity. Particular attention should be paid to the diagnosis and treatment of mixed infections in young patients to prevent complications and improve clinical outcomes.

Analysis of ultrasound examination (US) data of the prostate gland in patients with chronic prostatitis demonstrates pronounced age-related changes. An increase in the volume of the prostate gland occurs more often with age: in young patients (≤ 44 years) it is observed in 24.4% of cases, in middle-aged men (45–59 years) – in 28.2%, and in elderly men (≥ 60 years) it reaches 33.3%. This may be associated with progressive inflammatory changes, age-related development of benign hyperplasia and the chronic course of the disease.

Decreased echogenicity, indicating inflammatory changes and tissue edema, is distributed relatively evenly across all age groups: 17.8% in young people, 17.9% in middle-aged men, and 22.2% in the elderly. A slight increase in this indicator in the older age group may indicate long-term inflammation or chronic exacerbations.

Increased echogenicity, which reflects fibrotic changes and tissue scarring, increases with age. In young patients, it occurs in 48.9% of cases, in middle-aged men – in 51.3%, and in elderly men – in 63.0%. This emphasizes the accumulation of fibrotic changes in the prostate gland with age, which is associated with chronic inflammation and long-term course of the disease (Fig. 5).

Analysis of rectal examination data in patients with chronic prostatitis reveals significant age-related changes in the condition of the prostate gland. Decreased prostate tone is observed in 37.9% of young patients (≤ 44 years), 38.5% of middle-aged men (45–59 years), and 44.4% of elderly men (≥ 60 years). An increase in the frequency of this symptom with age may be associated with progressive structural changes in the gland, such as fibrosis and atrophic processes that occur against the background of chronic inflammation.

Increased prostate tone is less common than decreased tone, but also tends to increase with age. In young patients, it is observed in 22.3% of cases, in middle-aged men – in 25.6%, and in the elderly – in 29.6%. This may be due to the reaction of muscle tissue to a chronic inflammatory process, which leads to spasm and increased tone.

Pain on palpation of the prostate gland is the most common symptom in all age groups and increases with age. In young patients, it is observed in 72.8% of cases, in middle-aged patients – in 76.9%, and in elderly patients – in 81.5%. The increase in the frequency of pain with age is associated with a long course of inflammation, the development of fibrous changes, and increased tissue sensitivity in elderly patients (Fig. 6).

1. **Conclusions:** Thus, concomitant pathology in patients with chronic prostatitis is age-related. Young patients are more likely to have gastrointestinal diseases, ENT diseases, and anemia, while middle-aged men are more likely to have cardiovascular diseases, such

as hypertension and coronary heart disease. Elderly patients are more likely to have hypertension, coronary heart disease, gastrointestinal diseases, and endocrine disorders, indicating the multisystemic impact of chronic inflammation and age-related changes. These data emphasize the need for a comprehensive approach to the treatment of chronic prostatitis, taking into account concomitant pathology depending on the patient's age.

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**КЛИНИКО-АНАМНЕСТИЧЕСКИЕ,
ЛАБОРАТОРНЫЕ И ИНСТРУМЕНТАЛЬНЫЕ
ОСОБЕННОСТИ ХРОНИЧЕСКОГО ПРОСТАТИТА
В ЗАВИСИМОСТИ ОТ ВОЗРАСТА**

Хамдамов Б.З., Жураев Ш.Р.

Резюме. *Статья посвящена исследованию клинико-anamnestических, лабораторных и инструментальных особенностей хронического простатита в зависимости от возраста. Установлено, что патология проявляется с различной частотой и характером симптомов у молодых, среднего возраста и пожилых пациентов. Наибольшее внимание уделено возрастным изменениям, сопутствующим заболеваниям и инфекционному статусу, что подчеркивает важность комплексного подхода в диагностике и лечении.*

Ключевые слова: *хронический простатит, возрастные особенности, клинические симптомы, инфекционный статус, сопутствующая патология.*