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CHALLENGES IN EARLY DIAGNOSIS OF BENIGN PROSTATIC HYPERPLASIA

Mukhtarov Shukhrat Tursunovich[2], Akilov Farkhad Ataullayevich[1], Khudayberdiev Khurshid Bahodirovich[1]
1 - Tashkent Medical Academy, Republic of Uzbekistan, Tashkent;
2 - Republican Specialized Scientific and Practical Medical Center of Urology,
Republic of Uzbekistan, Tashkent

ПРОСТАТА ХАВФСИЗ ГИПЕРПЛАЗИЯСИ ЭРТА ДИАГНОСТИКАСИДАГИ МУАММОЛАР

Мухтаров Шухрат Турсунович[2], Акилов Фархад Атауллаевич[1], Худайбердиев Хуршид Баходирович[1]
1 - Тошкент тиббиёт академияси, Ўзбекистон Республикаси, Тошкент ш.;
2 – Республика ихтисослаштирилган урология илмий-амалий тиббиёт маркази,
Ўзбекистон Республикаси, Тошкент ш.

ПРОБЛЕМЫ РАННЕЙ ДИАГНОСТИКИ ДОБРОКАЧЕСТВЕННОЙ ГИПЕРПЛАЗИИ ПРОСТАТЫ

Мухтаров Шухрат Турсунович[2], Акилов Фархад Атауллаевич[1], Худайбердиев Хуршид Баходирович[1]
1 - Ташкентская медицинская академия, Республика Узбекистан, г. Ташкент;
2 - Республиканский специализированный научно-практический медицинский центр урологии,
Республика Узбекистан, г. Ташкент

e-mail: hhbnick@gmail.com

Резюме. *Простата хавфсиз гиперплазияси (ПХГ) простата безининг канцероген бўлмаган катталашуви билан тавсифланган кенг тарқалган патология бўлиб, биринчи навбатда кекса эркакларда учрайди. Эрта ташхис қўйиш ўз вақтида даволаниш натижаларини яхшилаш учун жуда муҳимдир. Бироқ, эрта ташхис қўйишни ортга сурадиган кўплаб муаммолар мавжуд эканлигин амалиёт кўрсатиб турибди. Кўпинча, бошқа урологик патологиялар билан бир-бирига ўхшаш симптомлар билан келадиган ёки нормал қариш билан боғлиқ бўлган эрта босқичдаги ПХГ нинг ўзига хос бўлмаган белгилари тиббий ёрдамни кечиктиришга олиб келиши мумкин. Асимптоматик ёки енгил симптоматик ҳолатлар эрта ташхислашни янада мураккаблаштиради, чунки беморлар симптомлар ёмонлашгунча шифкорга мурожаат қилишини ортга суришади. Хулоса қилиб айтиш мумкинки, ПХГ ни эрта ташхислаш даво чораларини оптимал олиб бориш учун зарурдир. ПХГ ни эрта аниқлаш учун маълум муаммоларни бартараф этиш муҳимдир. Аҳоли орасида ПХГ тўғрисида тиббий саводхонликни ортиши ва фаол ёндашувни қўллаш орқали биз эрта ташхис кўрсакткичларини яхшилашимиз мумкин, бу эса ПХГ билан касалланганлар учун саломатлик ва ҳаёт сифатини яхшилашга олиб келади.*

Калит сўзлар: *простата хавфсиз гиперплазияси, диагностика, эрта диагностика.*

Abstract. *Benign prostatic hyperplasia (BPH) is a common condition characterized by the non-cancerous enlargement of the prostate gland, primarily affecting aging men. Early diagnosis is crucial for timely intervention and improved treatment outcomes. However, achieving early diagnosis presents numerous challenges.The non-specific symptomatology of early-stage BPH, often overlapping with other urological conditions or attributed to normal aging, can lead to delayed medical attention. Asymptomatic or mildly symptomatic cases further compound the problem, as patients may not recognize the need for evaluation until symptoms worsen. In conclusion, early diagnosis of BPH is essential for optimal management. Overcoming the challenges of non-specific symptoms, asymptomatic cases, technological limitations, and societal reluctance is paramount to achieving early detection. By promoting awareness and adopting a proactive approach, we can enhance early diagnosis, leading to improved outcomes and quality of life for individuals with BPH.*

Key words: *benign prostatic hyperplasia, diagnosis, early diagnosis.*

Introduction. Benign prostatic hyperplasia (BPH) is a widely seen and gradually advancing urological disorder that impacts a significant proportion of elderly males on a global scale [4]. Benign prostatic hyperplasia (BPH) is a medical condition characterized by the non-malignant growth of the prostate gland [4, 7]. This enlargement can result in lower urinary tract symptoms (LUTS) that have a substantial influence on the quality of life of affected individuals. The timely identification and intervention of a condition are crucial in order to effectively address the issue, minimize potential repercussions, and enhance the overall prognosis for those impacted. Nevertheless, the task of attaining an early diagnosis of benign prostatic hyperplasia (BPH) poses a complex challenge, involving various aspects that contribute to the delayed identification and subsequent treatment of the condition.

The objective of this work is to present a thorough examination and analysis of the obstacles associated with attaining timely detection of benign prostatic hyperplasia (BPH). Through an examination of the several complex elements that contribute to the phenomenon of delayed recognition, our aim is to enhance understanding and emphasize the importance

of prompt action in enhancing the management of benign prostatic hyperplasia (BPH).

Asymptomatic presentation. The absence of symptoms in individuals with benign prostatic hyperplasia (BPH) is a considerable obstacle in the timely identification and treatment of the condition. During the early phases of benign prostatic hyperplasia (BPH) progression, there is a steady increase in the size of the prostate gland as a result of the proliferation of prostatic cells. However, this expansion may not manifest apparent symptoms or produce discomfort for the individual affected by the condition [7]. Consequently, persons who have asymptomatic or moderate benign prostatic hyperplasia (BPH) might not actively pursue medical assistance or may explain any slight urine alterations to typical aging processes, thereby disregarding the necessity for further assessment.

In such instances, the lack of apparent symptoms can engender a deceptive perception of good health, causing individuals of the male gender to postpone seeking medical counsel or contemplating the potential presence of a medical ailment. Individuals may potentially see their urine alterations as insignificant or temporary, attributing them to variables such as fluid consumption or psychological tension.

Moreover, it has been observed that in certain instances, males may unknowingly modify their daily schedules and behaviors to adapt to the minor alterations in urinary function resulting from the initial phases of benign prostatic hyperplasia (BPH).

Individuals may choose to decrease their fluid consumption, restrict engaging in physical activities that induce a sense of urgency to urinate, or refrain from circumstances where toilet facilities are not readily accessible. These modifications have the potential to provide temporary relief from symptoms, so exacerbating the tendency to postpone seeking medical attention.

In order to effectively tackle the issue of asymptomatic benign prostatic hyperplasia (BPH) manifestation, it is recommended that public awareness initiatives prioritize the significance of regular health screenings, particularly for males in the middle and older age groups. Raising awareness among the general population on the initial indicators of benign prostatic hyperplasia (BPH) and the potential ramifications thereof can foster a proactive approach among men towards their urological well-being. In addition, it is imperative for healthcare personnel to maintain a high level of attentiveness inquiring about urinary symptoms during patient interactions and providing suitable diagnostic assessments when necessary.

Age-related symptoms. Distinguishing between benign prostatic hyperplasia (BPH) and age-related changes in the urinary system poses a considerable problem due to the overlap of urine symptoms, especially in elderly males [3]. As males progress in age, the urinary system has inherent physiological transformations that may result in modifications to voiding habits and urine function [3, 6]. The symptoms associated with aging frequently resemble the characteristic indicators of benign prostatic hyperplasia (BPH), which might potentially lead to a delay in identifying the presence of the condition.

Nocturia, often known as nighttime urination, is a prevalent issue observed in individuals experiencing both benign prostatic hyperplasia (BPH) and age-related alterations in bladder function [5]. As males age, there is a potential decline in the bladder's ability to retain urine, resulting in an elevated frequency of nocturnal urination [1]. Moreover, alterations in hormone levels associated with aging can also lead to heightened nocturnal urine output. The occurrence of nocturia in senior males may be perceived as a typical outcome of the aging process, rather than a potential indication of an underlying medical ailment such as benign prostatic hyperplasia (BPH).

Diminished urine Flow: In both Benign Prostatic Hyperplasia (BPH) and the process of aging, the strength of the urine stream may decline as a result of multiple reasons. The physiological changes associated with aging, namely in the bladder muscle tone and prostate gland, can lead to a reduction in urine flow rate characterized by decreased speed and strength [1]. Likewise, the compression of the urethra generated by benign prostatic hyperplasia (BPH) can result in a reduction in the rate of urine flow. The presence of identical symptoms may result in men and certain healthcare providers attributing the matter only to age, hence disregarding the potential occurrence of benign prostatic hyperplasia (BPH).

The occurrence of heightened urine frequency and urgency is observed in both age-related urinary alterations and benign prostatic hyperplasia (BPH). The bladder experiences age-related changes that might lead to increased sensitivity during the filling process, perhaps resulting in a greater frequency of urination. Benign prostatic hyperplasia (BPH)-induced blockage of the urethra can also result in an augmented perception of urgency [1]. The presence of overlapping symptoms might give rise to misunderstandings regarding the underlying cause, which in turn has the potential to impede the timely assessment and management of the condition.

The Post-void Residual Volume (PVR) may decrease with advancing age as a result of reduced muscular contractility, leading to a lessened capacity of the bladder to fully empty [1]. Likewise, benign prostatic hyperplasia (BPH) has the potential to result in inadequate bladder voiding as a consequence of obstructed urethral passage. Both conditions have the potential to lead to an elevated post-void residual volume, characterized by the presence of residual urine in the bladder following voiding. The presence of this common symptom can exacerbate the chal-

lenge of accurately identifying benign prostatic hyperplasia (BPH) in older males [3].

In order to address the issue of age-related symptoms potentially concealing benign prostatic hyperplasia (BPH), healthcare professionals should adopt a comprehensive and personalized strategy for assessing urinary concerns among older individuals [6].

Symptoms overlap with other conditions. The diagnostic problem faced by healthcare practitioners arises from the presence of overlapping symptoms observed in both benign prostatic hyperplasia (BPH) and several other urological disorders. Numerous medical illnesses may manifest with comparable symptoms in the lower urinary tract, hence giving rise to possible ambiguity and necessitating a comprehensive assessment to differentiate benign prostatic hyperplasia (BPH) from alternative underlying ailments.

Urinary Tract Infections (UTIs) are prevalent infections that manifest with symptoms including heightened urine frequency, urgency, and discomfort or a burning sensation during urinating. The presence of these symptoms may result in confusion regarding the underlying cause, as they can resemble those associated with BPH. Moreover, it has been observed that benign prostatic hyperplasia (BPH) can potentially increase the susceptibility of individuals to urinary tract infections (UTIs) as a result of inadequate bladder emptying induced by constriction of the urethra.

Prostatitis refers to the inflammatory condition of the prostate gland, which manifests with symptoms that resemble those of benign prostatic hyperplasia (BPH) [7]. These symptoms commonly include increased frequency of urination, urinary urgency, and pelvic discomfort. The symptoms of prostatitis can manifest as either acute or chronic, and accurately differentiating between benign prostatic hyperplasia (BPH) and prostatitis may necessitate additional diagnostic procedures, such as urine cultures or study of prostatic fluid [9].

Prostate cancer is a medical disorder that may present symptoms resembling those of benign prostatic hyperplasia (BPH), particularly during its initial phases. Both of these disorders have the potential to result in urinary symptoms, including heightened frequency, urgency, diminished stream strength, or challenges with commencing urination [10]. It is of paramount importance to differentiate between benign prostatic hyperplasia (BPH) and prostate cancer due to the substantial disparities in their treatment strategies and prognoses.

Bladder dysfunction, including conditions such as overactive bladder (OAB), may exhibit symptoms that are similar to those associated with benign prostatic hyperplasia (BPH). Overactive bladder (OAB) is distinguished by an abrupt and intense need to void urine, frequently leading to increased frequency of urination and a sense of urgency in the urinary system [2]. The presence of overlapping symptoms can pose a difficulty in determining the underlying cause of the urine symptoms [13].

Neurological conditions can give rise to symptoms like benign prostatic hyperplasia (BPH) by affecting the nerves that control the bladder. Bladder dysfunction, characterized by symptoms of urine frequency, urgency, and hesitancy, can arise as a consequence of various medical conditions, including multiple sclerosis and spinal cord injuries [13]. Thorough assessment and diagnostic examinations are crucial in distinguishing between neurological etiologies and benign prostatic hyperplasia (BPH).

Nocturia: Nocturia, a common symptom associated with benign prostatic hyperplasia (BPH), is characterized by an elevated nocturnal urine output, leading to numerous awakenings throughout sleep for the purpose of urination [5]. Nocturia is frequently observed as a sign of benign prostatic hyperplasia (BPH); however, it may also be correlated with medical diseases such as diabetes, heart failure, or the use of drugs that impact fluid equilibrium. Furthermore, nocturia is frequently regarded as a typical outcome of the aging process, so adding to the complexity of attributing it to benign prostatic hyperplasia (BPH) [5].

Diabetic cystopathy. It is possible for the symptoms of BPH and diabetic cystopathy to overlap, as both conditions can affect the urinary system [12]. For example, both conditions can cause an increased frequency of urination, difficulty in initiating urination (weak urinary stream), the need to urinate frequently during the night (nocturia), and incomplete emptying of the bladder [14]. Urinary incontinence and urinary retention are also symptoms that can occur in both BPH and diabetic cystopathy. In some cases, it may be difficult to differentiate between the two conditions based on symptoms alone, so a proper medical evaluation, including medical history, physical examination, and diagnostics should be conducted. It is important to note that diabetic cystopathy can exacerbate symptoms of BPH, and patients with comorbidities should be monitored closely to prevent complications.

Urethral stricture. The symptoms of BPH (Benign Prostatic Hyperplasia) and urethral stricture can overlap in some cases due to their impact on the urinary system. One symptom that can overlap between BPH and urethral stricture is a weak urinary stream. Both conditions can result in a reduced flow of urine during urination. Frequent urination and nocturia can also be seen in both BPH and urethral stricture. These symptoms occur because the obstruction caused by an enlarged prostate in BPH or a narrowed urethra in

urethral stricture can interfere with the normal flow of urine.

In order to address the diagnostic difficulty arising from the presence of overlapping symptoms, it is imperative for healthcare providers to undertake a thorough evaluation of individuals presenting with lower urinary tract problems. A comprehensive medical record, encompassing the commencement and duration of symptoms, prior medical ailments, and medication utilization, might yield significant insights into the fundamental etiology.

The evaluation process necessitates the inclusion of physical examinations, such as the digital rectal examination (DRE), which is performed to determine the size and consistency of the prostate gland. Further diagnostic examinations, including urinalysis, urine cultures, prostate-specific antigen (PSA) blood tests, uroflowmetry, and post-void residual volume measurement, may be required to distinguish between benign prostatic hyperplasia (BPH) and alternative medical problems.

In addition, various imaging modalities, including as transrectal ultrasonography or magnetic resonance imaging (MRI), can be employed to see the prostate gland and evaluate its anatomical characteristics, hence facilitating the detection of any irregularities.

Reluctance to seek medical attention. The hesitancy exhibited by males in seeking medical care for urine symptoms, including both urinary function and sexual health, is a noteworthy obstacle to the prompt identification and treatment of benign prostatic hyperplasia (BPH) [8]. The hesitancy observed can be ascribed to a multitude of variables, encompassing cultural standards and individual convictions, which collectively lead to the postponement of obtaining suitable medical attention.

The phenomenon of stigma and embarrassment. Discussions pertaining to urology and sexual health frequently encounter a societal stigma. Men may have feelings of embarrassment or discomfort while discussing bladder issues, perceiving such conversations as private or socially unacceptable [8]. The apprehension of facing judgment or social stigma may result in a hesitancy to disclose these concerns to healthcare professionals, impeding timely action for potential health conditions, such as benign prostatic hyperplasia (BPH) [4].

Fear of Diagnosis: Certain individuals of the male gender may exhibit reluctance in acknowledging the potential existence of a medical ailment, such as benign prostatic hyperplasia (BPH).

Symptom Minimization: It is possible for men to underestimate the severity of their urine symptoms, attributing them to insignificant inconveniences rather than acknowledging them as potential indicators of an underlying medical issue such as benign prostatic hyperplasia (BPH) [11]. The act of minimizing symptoms may arise from a motivation to preserve a state of normalcy or an underlying belief that the symptoms do not reach a level of severity that necessitates seeking medical assistance [4].

In order to mitigate this hesitancy and promote the proactive pursuit of medical assessment for urinary symptoms among men, healthcare practitioners and public health initiatives should prioritize the dissemination of information and the cultivation of transparent dialogue. Public education initiatives should strive to reduce the social stigma associated with conversations about urological and sexual health, with a focus on promoting the notion that seeking medical attention for these matters is a conscientious and indispensable component of one's overall health and welfare.

Moreover, the inclusion of regular urological screenings within comprehensive health check-ups can enhance the timely identification of benign prostatic hyperplasia (BPH) and other urological ailments. When men are educated about the normative and anticipated nature of addressing urinary problems within the context of healthcare, they may exhibit a greater propensity to actively seek assistance and swiftly address potential health concerns.

Physician-related factors. During normal checkups, healthcare practitioners might not always aggressively enquire about symptoms of the lower urinary tract, particularly in patients who do not clearly mention urine complaints. This is especially true in cases where patients do not report urinary problems. This can lead to lost possibilities for early detection and intervention in a given situation [4].

Healthcare providers have a crucial role in the identification of asymptomatic benign prostatic hyperplasia (BPH). During regular health examinations or preventative consultations, it is recommended that physicians inquire about urinary problems, particularly in males aged 40 and above. Physicians can effectively obtain significant information from patients who may not readily disclose specifics by proactively inquiring about lower urinary tract issues. Furthermore, the utilization of digital rectal examination (DRE) can aid in the evaluation of the dimensions and state of the prostate gland, offering indications of potential benign prostatic hyperplasia (BPH), even in cases when apparent symptoms are not present.

Imaging challenges. It's possible for one clinician to be more sensitive than another when it comes to detecting patients with an enlarged prostate using digital rectal examination (DRE) [10]. In addition, the availability and requirement of imaging methods, such as transrectal ultrasound or uroflowmetry, can fluctuate, which can cause delays in the process of detecting a medical condition.

To effectively tackle these difficulties, it is imperative to enhance the level of knowledge among both patients and healthcare practitioners. Public edu-

cation programs have the potential to enhance the ability of men to identify the potential indicators of benign prostatic hyperplasia (BPH) and to actively pursue medical assessment when deemed required. During normal medical consultations, it is advisable for healthcare professionals to proactively inquire about lower urinary tract symptoms and employ suitable diagnostic methods to assess and distinguish benign prostatic hyperplasia (BPH) from other urological disorders. Enhanced accessibility to advanced imaging and diagnostic technology has the potential to facilitate precise and prompt diagnosis, hence enabling early intervention and enhanced management of benign prostatic hyperplasia (BPH). Furthermore, it is imperative that research endeavors prioritize the advancement of more precise and individualized diagnostic methodologies in order to augment the timely identification of benign prostatic hyperplasia (BPH) while simultaneously reducing unwarranted procedures. By acknowledging and tackling these obstacles, it is possible to enhance the quality of care and improve the overall outcomes for individuals who are impacted by benign prostatic hyperplasia (BPH).

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ПРОБЛЕМЫ РАННЕЙ ДИАГНОСТИКИ ДОБРОКАЧЕСТВЕННОЙ ГИПЕРПЛАЗИИ ПРОСТАТЫ

Мухтаров Ш.Т., Акилов Ф.А., Худайбердиев Х.Б.

Резюме. *Доброкачественная гиперплазия простаты (БПГ) является распространенной патологией, характеризующимся не канцерогенным увеличением предстательной железы, в первую очередь затрагивающим стареющих мужчин. Ранняя диагностика имеет решающее значение для своевременного вмешательства и улучшения результатов лечения. Тем не менее, достижение раннего диагноза представляет собой многочисленные проблемы. Неспецифическая симптоматика ДГПЖ ранней стадии, часто перекрывающаяся с другими урологическими состояниями или приписываемая нормальному старению, может привести к несвоевременному оказанию медицинской помощи. Бессимптомные или легкие симптоматические случаи еще больше усугубляют проблему, поскольку пациенты могут не признавать необходимость оценки до тех пор, пока симптомы не ухудшаются. В заключение, ранняя диагностика ДГПЖ имеет важное значение для оптимальной организации медицинской помощи. Преодоление проблем, связанных с неспецифическими симптомами, бессимптомными случаями, технологическими ограничениями и нежеланием пациента, имеет первостепенное значение для раннего выявления. Содействуя повышению осведомленности и принятию активного подхода, мы можем улучшить раннюю диагностику, что приводит к улучшению результатов и качества жизни людей с ДГПЖ.*

Ключевые слова: *доброкачественная гиперплазия простаты, диагностика, ранняя диагностика.*