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CLINICAL FEATURES OF ENURESIS TEENAGERS AND PRIZERS.

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ABSTRACT. *The article presents the results of a comprehensive examination of adolescents with enuresis between the ages of 15 and 23. Compared to healthy conscripts, 66.5% of conscripts with nocturnal urinary incontinence showed increased prostate size and volume, decreased levels of total testosterone and luteinizing hormone in the blood, high prevalence of vesicoptosis (decreased bladder) and nephroptosis.*
KEY WORDS: *functional constipation, prostate, enuresis, bladder dysfunction, adolescents.*

КЛИНИЧЕСКИЕ ОСОБЕННОСТИ ЭНУРЕЗА У ПОДРОСТКОВ И ПРИЗЫВНИКОВ.

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АННОТАЦИЯ. *В статье изложены результаты комплексного обследования подростков с энурезом в возрасте от 15 до 23 лет. По сравнению со здоровыми призывниками у 66,5% призывников с ночной недержанием мочи выявлено увеличение размеров и объема предстательной железы, снижение уровня общего тестостерона и лютеинизирующего гормона в крови, высокая распространенность везикоптоза (снижение мочевого пузыря) и нефроптоза.*
КЛЮЧЕВЫЕ СЛОВА: *функциональный запор, простата, энурез, дисфункция мочевого пузыря, подростки.*

Introduction. The problem of pelvic organ dysfunctions occupies an important place in pediatrics and pediatric urology [1].

The relevance of the problem is related to the high prevalence of this pathology. According to the results of epidemiological studies, every fifth child aged 5-7 suffers from urinary disorders, among primary school students, the number of children with bladder dysfunction (BD) reaches 17-26% [2, 3]. Enuresis is most common: its frequency in children aged 7 years is 5-7%. Urinary

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incontinence has age-related regression associated with the maturation of the central nervous system and the gradual formation of a mature type of urination. However, according to literature, enuresis persists in 1.5% of adolescents and 0.5-1% of adults [4, 5].

Nighttime urinary incontinence is more common than diagnosed. On the one hand, among the conscripts being examined for enuresis, there are patients with signs of simulated illness: such adolescents are recognized as partially fit (fitness category B) for military service under the article "Disease Schedule." On the other hand, the problem of enuresis for adolescents and conscripts has great medical and social significance. The disease causes significant inconvenience for young men and their surroundings.

Adolescents are deprived of the opportunity to study in closed educational institutions, serve in the army, their quality of life suffers, and accentuated character traits are formed [5, 6]. The prolonged psychotraumatic factor of the disease itself and the awareness of one's physical inferiority leaves a negative mark on the adolescent's behavior, leading to emotional-volitional disorders with a pronounced anxious state of the psyche.

The purpose of this study was to study risk factors and identify morphofunctional and clinical features of enuresis in adolescents and conscripts.

Materials and methods. The study included 143 adolescents aged 15 to 23 (average age 16.3±1.8), who underwent examination at the regional healthcare institution at the "Central Family Polyclinic No. 5" in the city of Andijan in 2020-2025, on the recommendation of the Andijan Regional Military Commissariat. All conscripts were divided into 3 groups. The 1st group with the verified diagnosis of "Enuresis" included 98 (68.5%) adolescents; 12 (11.2%) conscripts who did not report nocturnal urinary incontinence but had urinary incontinence in their medical history were included in the 2nd group (recovered patients); 33 (20.2%) patients who showed signs of disease simulation constituted the healthy group.

To determine the morphofunctional features of enuresis, a comprehensive examination was conducted on all adolescents. Conscripts who experienced nocturnal urinary incontinence as one of the symptoms of an organic disease of the nervous or urinary system did not participate in the study. The examination algorithm included studying the somatic and neurological status, conducting electroencephalography, ultrasound examination of pelvic organs, including dopplerography of renal arteries and veins, uroflowmetry, lumbar-sacral spine radiography, and determining the level of sex hormones.

In addition, a study of the emotional-volitional and cognitive functions of conscripts with nocturnal urinary incontinence was conducted using the "General Psychological Well-being Index" questionnaire and the Spielberger

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test with an assessment of situational and personal anxiety.

In recent decades, non-invasive diagnostic methods have become a priority in pediatric practice. The main method was ultrasound examination of pelvic organs with transperineal and transrectal access. The condition of pelvic organs and pelvic floor muscles was studied through the anterior abdominal wall and transperineally in B-mode. The scan was performed while the patient was lying on their left side with their legs brought to their stomach. The sensor was installed directly in the anal fossa.

Scanning was carried out in 2 perpendicular planes - sagittal and frontal. In conscripts and adolescents, dopplerometry with assessment of renal blood flow was performed at three levels of the vessel. From the absolute indicators of arterial blood flow, the peak systolic (Vmax, cm/s), final diastolic velocity (Vmin, cm/s), as well as the time-averaged maximum blood flow velocity (TAMX, cm/s) were assessed.

Determination of the functional state of brain bioelectric activity (BEA) was carried out on a 16-channel Nycon Choden apparatus (Japan).

The type of electroencephalogram (EEG) was assessed according to the classification of E. A. Zhirmunskaya (1991), as well as the methodology adapted for pediatric practice by N. K. Blagosklonova (1994), according to which it is customary to distinguish organized, disorganized with slowed or accelerated α-rhythm, desynchronized, and hypersynchronized types of BEA.

A qualitative assessment of uroflowgrams was conducted based on the relationship between "volume/speed" indicators, which are not specific to various lower urinary tract pathologies. Based on the results of direct graphical registration of the volumetric flow rate of urine during urination, a uroflowmetric curve was automatically constructed, which was assessed using the nomogram of E. L. Vishnevsky, T. V. Gadzhiev (2006).

Accordingly, the corresponding type of urination was determined: normal, obstructive, rapid, doubtful (transitional) [4].

Statistical processing of the results was carried out using the Statistica 8.0 program. The following indicators were calculated: geometric mean (G), standard deviation (SD), interquartile range. To determine the significance of differences in the compared mean values (p) in unrelated groups, the Mann-Whitney criterion (U-criterion) was used. Analysis of categorical data was carried out using Fisher's exact criterion (F-criterion).

Research results and their discussion. Analysis of complaints and anamnesis of adolescents with enuresis showed that in 93 (94.9%) adolescents, the disease was primary; in 5 (5.1%) - it was assessed as secondary, arising after establishing a mature type of urination [4]. In 58 (59.4%) patients, urinary incontinence occurred 1-2 times a week, in 23 (23.4%) - 2-4 times a month, and in

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10 (10.2%) conscripts, rare episodes of enuresis were detected - from 6 to 12 times a year. In 7.8% of adolescents, urinary incontinence occurred every night and was accompanied by various disorders of urination and defecation, imperative urges, increased urination rhythm, periodic delayed defecation, including the formation of functional constipation.

It should be noted that 35 (35.9%) conscripts experienced episodes of increased enuresis associated with significant physical exertion, the addition of an intercurrent disease, and excessive fluid intake at night.

Systematic treatment of nocturnal urinary incontinence was carried out in 63 (64.2%) conscripts, mainly in outpatient settings; in 54 (85.7%) - treatment had no pronounced clinical effect.

The duration of enuresis in conscripts of the 1st group, according to anamnesis data, was 12.8 ± 3.6 years, in adolescents of the 2nd group - 6.9 ± 2.5 years.

Analysis of risk factors associated with the formation of dysfunction in the urinary system, primarily enuresis, showed that patients of all clinical groups have significant differences only in hereditary severity and bladder location.

We found that bladder vesicoptosis was statistically significantly more frequently diagnosed in patients with enuresis (72%) compared to conscripts who had urinary incontinence only in the anamnesis (25.0%) and healthy adolescents (39.3%).

The frequency of cervical atony in patients with enuresis (36.7%) was statistically significantly higher than in adolescents of the 2nd group (16.6%), who had no clinical manifestations of cervical dysfunction, and compared to healthy adolescents, the differences were statistically insignificant.

Analysis of the obtained data revealed that the main biochemical blood parameters in healthy and sick adolescents did not differ from each other, except for the number of thrombocytes, which was significantly higher in conscripts with nocturnal urinary incontinence.

Analysis of renal hemodynamics in adolescents with enuresis revealed blood flow disorders at the level of the renal and right segmental arteries. The differences in IR between patients with urinary incontinence and healthy conscripts were significant, amounting to 0.63 ± 0.02 in the right interlobular artery and 0.58 ± 0.02 in the left.

Determining the volume of the prostate gland in conscripts with enuresis showed an increase in its volume, as well as the anterior-midline and transverse dimensions, which were significantly higher in conscripts with this pathology and in adolescents with urinary incontinence and vesicoptosis, compared to adolescents in other clinical groups.

Urodynamic examination of the lower urinary tract in 57 (58.1%) conscripts with enuresis established a normal type of urination, in 34 (34.6%) - obstructive, in 7 (7.3%) - rapid. In young

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men recognized as healthy based on the results of expert hospitalization, normal urination was noted in 26 (78.8%) cases, obstructive - in 7 (21.2%). The uroflowmetry indicators of conscripts with enuresis and young men of the healthy group did not have significant differences. Neurological examination revealed insignificant changes in the central nervous system in 48 (48.9%) adolescents with enuresis. 51.1% of conscripts exhibited the following microsymptoms: slight deviation of the tongue, increased tendon reflexes, dissociation of tendon-periosteal reflexes, and facial muscle asymmetry.

In adolescents with enuresis, trembling of closed eyelids and extended fingers (36.3%) was statistically more frequently diagnosed than in healthy conscripts (18.1%; F-criterion p = 0.04).

Studying the hormonal status of adolescents and conscripts with enuresis revealed a significantly lower level of total testosterone to 7.32 (6.58-9.26) nmol/l compared to healthy conscripts, where this indicator was 15.86 (12.6-19.83) nmol/l, and a moderate decrease in luteinizing hormone.

Such changes in hypothalamic-pituitary secretion seem to be related to the peculiarities of cerebral BEA and indicate its functional immaturity, moderate delay in the formation of the limbic-reticular complex in conscripts with urinary incontinence, which was confirmed in 68 (68.4%) of the examined by general cerebral changes of varying severity according to EEG data, the presence of a focus of pathological activity, disruption of the functioning of the main rhythms of the brain. This is why the inclusion of sex hormone levels and EEG in the examination algorithm for recruits with enuresis is essential for the comprehensive diagnosis of functional changes [7, 8].

Conclusions. 1. Neurological examination of conscripts with enuresis revealed focal symptoms, predominantly residual in nature, associated with disorganized delayed (28.5%), hypersynchronized type of electroencephalogram (14.2%).

2. In 70.5% of conscription-age adolescents with enuresis, moderate general cerebral changes in the brain's bioelectrical activity, combined with a decrease in the level of total testosterone and luteinizing hormone in the blood, were revealed, which indicated a dysfunction of the midstem structures of the brain and a violation of the hypothalamic-pituitary secretion of sex hormones.

3. In adolescents with enuresis, an increase in the size and volume of the prostate gland, which was 17.35±3.20 cm3, was revealed, which allows us to use this morphological feature in the examination of urinary incontinence.

4. In 36.4% of adolescents with enuresis, obstructive urine output was detected, in 7.3% - rapid urine output, which was characterized by impaired urodynamics of the lower urinary tract.

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LIST OF LITERATURE.

1.Zorkin S. N., Borisova S. A., Gusarova T. I. Assessment of the effectiveness of oxybutinine (driptan) use in children with bladder hyperactivity. Pediatrics. 2006; 5: 67-71.

2.5Abramova A. A., Gurevich A. I., Menovshchikova L. B. Method of diagnosing paradoxical movement of the pelvic floor in patients with mixed dysfunctions. Pediatric surgery. 2012; 5: 37-41.

3. Javatkhanova R. I. Functional state of the rectum in chronic constipation in children. Abstract of diss.... Cand. of Medical Sciences. M. 2013. 21 p.

4. Vishnevsky E. L., Pushkar D. Yu., Loran O. B., et al. Urofloumetry. M.: Printed City. 2004. 220 p.

5. Bryazgunov I. P. Night Enuresis in Children and Adolescents. M.: Medical Practice. 2006. 76 p.

6. Ganina E. Yu. Enuresis in young men of conscription age. Abstract of diss.... Cand. of Medical Sciences. M. 2008. 23 p.

7. Baleva L. S., Kazanskaya I. V., Korovina N. A., Studenin V. M., Blistinova Z. A., Zavadenko N. N., Zakharova I. N., Novikov P. V., Petrukhin A. S., Proshin V. A., Tamazyan G. V., Chumakova O. V., Shevchenko Yu. S., Tatochenko V. K., Lavrentyeva E. B., Doskin V. A., Belousova E. D. Algorithm for the diagnosis and treatment of primary nocturnal enuresis in children. Issues of modern pediatrics. 2005; 4 (2): 103-108.

8. Baleva L. S., Kazanskaya I. V., Korovina N. A., Studenin V. M., Blistinova Z. A., Zavadenko N. N., Zakharova I. N., Novikov P. V., Petrukhin A. S., Proshin V. A., Tamazyan G. V., Chumakova O. V., Shevchenko Yu. S., Tatochenko V. K., Lavrentyeva E. B., Doskin V. A., Belousova E. D. Algorithm for the diagnosis and treatment of primary nocturnal enuresis in children. Issues of modern pediatrics. 2005; 4 (3): 66-70