

NOCTURAL ENUREZIS IN CHILDREN AND ADOLESCENTS: THE STATUS OF DIAGNOSTICS” (review article)

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Abstract. These analyzes of the study on the methodology for diagnosing nocturnal enuresis in children and adolescents are given and the causes and circumstances diagnosed by modern technologies are considered. Nocturnal enuresis, involuntary urination during sleep in a child who is already able to control his physiological needs for it, occurs frequently 5-17% depending on age.[1]

Key words: enuresis, urination, physiological needs, OSAS.

Introduction. Enuresis is a common childhood disease characterized by the inability of the child to control the act of urination (involuntary urination), resulting in psychological discomfort. Urinary incontinence occurs in both children and adolescents, while enuresis can occur both during the day and at night. According to official statistics, 20% of children aged 5 years, 10-15% of children aged 10 years and at least 3% of adolescents suffer from various forms of urinary incontinence. Types of enuresis: primary and secondary.[2]

Primary nocturnal enuresis is considered as a heterogeneous condition, the reasons for the development and maintenance of which are: unformed habits of neatness, impaired daily secretion of antidiuretic hormone and a high threshold for awakening from sleep. Secondary enuresis is associated with endocrine disorders (diabetes mellitus), use of diuretic substances (caffeine), urinary tract pathology (infections), encopresis, obstructive sleep apnea, psychosocial stress (family problems).[2]

Methods for the treatment of nocturnal enuresis: for many years, various groups of drugs have been used in the treatment of nocturnal enuresis: tranquilizers with a hypnotic effect, anxiolytics (medazepam, hydroxyzine, trimetosine, meprobamate), CNS stimulants and thymoleptic drugs (imipramine), nootropic and metabolic drugs actions (hopantenic acid, glycine).

Non-drug therapy: physiotherapy, magnetotherapy, laser therapy, music therapy and psychotherapy - only for children with a normal level of intelligence.

Neurodietological approaches to the treatment of enuresis: limiting fluid intake in the afternoon, there is also limited experience with a low-Ca diet.

Neurourology is one of the areas of modern science that unites the areas of interest of neurologists and urologists.

Results and discussion: According to the researchers: Data on the prevalence of nocturnal enuresis indicate that there is a very wide range of fluctuations in the frequency of this disease in the population - from 2.3 to 28%. On average, the frequency of enuresis in children is 7-12%, among them more than 40% have episodes of nocturnal enuresis more than once a week. This can be explained by the unequal frequency of the disease in children of different age group [3].

Age	
4-5 y.	20 %
5-8 y.	10-14 %
8-12 y.	6-11 %
12-15- y.	3,0-3,6 %
15-20 y.	3 %

It has been shown that in 15-17% of children spontaneous recovery occurs by adolescence, only 3% of the symptoms of the disease persist until the age of 20.[3] In boys, bedwetting is more common than in girls. Until the age of 9, there are no big differences between boys and girls in the frequency of bedwetting, girls older than 9 years are much less likely to suffer from nocturnal enuresis than boys, but after 13 years the differences disappear again. Enuresis in children living in orphanages is 20% more common than among the same age group of children living at home [3].

According to the researchers, a greater frequency of nocturnal enuresis occurs in children in developing countries than in developed countries, and in families with low socioeconomic affluence. However, it should be noted that in most of the surveyed families, where children suffered from nocturnal enuresis, 70% had good material and living conditions, and 30% had satisfactory ones. There are no differences in the frequency of bedwetting in children living in urban and rural areas. Parental education usually does not affect the incidence of nocturnal enuresis, but more often nocturnal enuresis is found in children whose mothers had a low education [5].

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Breastfeeding a baby for more than three months reduces the risk of nocturnal enuresis.

As a result of research, it became known that nocturnal enuresis can also be one of the first symptoms of somatic diseases. For example, diabetes mellitus: when examining children with diabetes mellitus at the age of 15, 27% of children had nocturnal enuresis, with insulin treatment, the frequency of bedwetting decreased to 7.9%.

Primary nocturnal enuresis	80-94 %	
Secondary nocturnal enuresis	20-25 %	
nocturnal with daytime enuresis	15-20 %	
	4,5 y. – 15,5 %	9 y. – 4,9 %

According to the time of occurrence, primary and secondary nocturnal enuresis are distinguished. Primary nocturnal enuresis occurs at an early age. Secondary is diagnosed when the child has acquired the skill of independent urination, if the child had a period of up to 3-6 months when there were no episodes of bedwetti.

According to the author, girls suffer more often from secondary enuresis. The occurrence of secondary enuresis is based on stressful situations in the family, dysfunction of the bladder, constipation, urinary tract infections, a sharp decrease or complete cessation of breathing during a night's sleep, and diabetes. Half of all cases of secondary enuresis occur in children aged 2 to 4 years and older than 12 years of age, often as a result of illness or stress. These manifestations are more often observed in a child who was born first in the family. With age, the frequency of primary nocturnal urinary incontinence decreases and the number of children suffering from secondary enuresis increases.

According to researchers, children with primary nocturnal enuresis are more likely to recover by adolescence than children with secondary nocturnal enuresis. In the article: according to A.A. Gavrilina , children with nocturnal enuresis revealed similar personality traits, regardless of the nature of the organic basis for the occurrence of enuresis. Children with enuresis, as a rule, are socially adapted. They have low anxiety, a high degree of need to conform to social stereotypes, and high extrover Since bedwetting occurs during sleep, researchers are trying to explain enuresis as a sleep disorder. It became known that 36% of healthy newborns wake up before urination, and 64% of children emit urine during REM sleep, which is accompanied by body movement, EEG changes, and heart rate.

Conclusion. Based on the above data, we concluded that nocturnal enuresis is more common in boys than in girls. One of the problems of identifying this disease may be a psychic attack from relatives.

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