



## **PROBLEMS OF COMPREHENSIVE TREATMENT OF CONGENITAL DEFECTS WITH URINARY INCONTINENCE IN CHILDREN.**

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### **Abstract:**

Today, 11.3% of newborns are born with various deviations from the norm of development, and more than 40% of them are caused by insufficiency and anomalies of the genitourinary system (Yu.F. Isakov, 1984; 1997; 2004; G.A. Bairov 1999; 2001, etc.). Among them, deviations from the norm complicated by urinary incontinence account for 8.0%. Complex treatment of developmental defects caused by urinary incontinence in children has long attracted the attention of practicing surgeons. and today is one of the most pressing problems of pediatric surgery. (N.E. Savchenko, 1976 edition: A.E. Rusakov 1998; Yu. Beknazarov 2004, etc.).

**Keywords:** Congenital defect, epispadias, diastasis, urinary incontinence

### **INTRODUCTION:**

Incontinence of urine is a syndrome of involuntary, uncontrolled urination, urinary incontinence, mainly during sleep. It is more common in children of preschool and early school age with a history of concomitant neurological pathology. It causes psychological trauma in the child, conflicts with peers in the group, punishment by parents in the family, neuroses, which further aggravates the course of enuresis. It often occurs together with other urological diseases (cystitis, pyelonephritis).

### **CLASSIFICATION:**

The following forms of incontinence are distinguished:

- Depending on the presence or absence of a "dry" period without involuntary urination in the past:

Persistent (primary) enuresis. Primary enuresis is nocturnal urinary incontinence in a child over 5 years old, if there has been no "dry" period in the past lasting more than 6 months.

Recurrent (secondary) enuresis is a condition in which a child begins to wet the bed after a dry period lasting from several months to several years. In cases of recurrent enuresis, a connection is often traced between incontinence and urological, endocrinological, neurological or mental illnesses.

Depending on the time of urinary incontinence:

There are nocturnal, daytime and mixed enuresis. Nocturnal enuresis is observed in 85%, daytime - in 5% and mixed - in 10% of children suffering from urinary incontinence. Nocturnal enuresis often develops in children who sleep very soundly (profundosomnia). Daytime and mixed enuresis may indicate that the child is experiencing neurological or emotional problems.

- Depending on the presence or absence of concomitant pathology:

Uncomplicated enuresis is considered to be enuresis that develops in the absence of signs of infection or pathological changes in the genitourinary system. If a urinary tract infection, anatomical and functional changes in the urinary tract or pathological neurological conditions are detected, complicated enuresis is diagnosed. The accepted terminology does not reflect the cause and effect of pathological conditions. In this case, the above conditions should be considered rather as a cause of urinary incontinence, and not as complications of enuresis.

A number of researchers distinguish between neurotic and neurosis-like enuresis. Neurotic enuresis usually develops in fearful, shy patients and is accompanied by severe experiences of the child. Children suffering from neurosis-like enuresis, unlike the previous group, are indifferent to their condition until adolescence.

The following causes of enuresis are distinguished:

Delayed development of cerebral urination centers

Impaired secretion of ADH

Urinary tract infections and urological diseases

Hereditary predisposition

Stress and unfavorable psychological factors

Sleep disorders

From birth to 6 months, the child has an "immature type of urination". The reflex arcs of the bladder close at the level of the spinal cord and midbrain, and urination occurs reflexively as urine accumulates (up to 20 times a day). From 6 months, the child begins to feel the filling of the bladder and tries to "signal" to others about the need to empty it (the child becomes focused, begins to strain, sometimes cries and calms down after urination). Therefore, the doctor to whom



the parents turn with such "complaints" should reassure the parents and explain that at this stage the baby is developing cortical control over urination. But to exclude various diseases of the urinary tract, the child needs to undergo an ultrasound examination and a general urine analysis. From this time on, it is advisable for parents to begin teaching the baby "toilet" skills. After a year, an even more active formation of the conditioned reflex occurs, the child develops central inhibition of urination and the capacity of the bladder increases.

Completion of the formation of the bladder function ("mature type of urination") occurs by 3-4 years and is characterized by a number of indicators:

compliance of the bladder volume with age standards (fluctuations in urine volume during the day from 60 to 160 ml);

adequate diuresis and bladder volume number of urinations per day (7-9 times);

complete retention of urine day and night;

the ability to delay urination for a while and interrupt it if necessary;

the ability to empty the bladder without a preceding urge with a small volume due to volitional regulation of the act of urination;

a certain behavior accompanying the act of urination (privacy, hygiene, etc.). If a full bladder can wake up a child, then cortical control over the function of urination is formed [12]. Given the age, urinary incontinence, as the most obvious manifestation of a urination disorder, is considered a pathology usually in children over 5 years old. At this age, regular urinary incontinence requires examination and treatment by various specialists [3, 5, 10, 16]. Neurogenic dysfunctions of the bladder. Normal function of the lower urinary tract consists of two phases - the phase of urine accumulation and the phase of emptying - and is determined by a complex interaction between the bladder, sphincter apparatus, urethra and all levels of the nervous system. Disturbances in these relationships can occur both in the accumulation phase and in the excretion phase. All these disorders are called "neurogenic bladder" - this is a collective term that unites a large group of disorders of the reservoir and evacuation functions of the bladder, which develop as a result of damage to the nervous system at various levels, and are characterized by changes in the uroepithelium or damage to the smooth muscle structure of the bladder. The muscles of the bladder (detrusor) can have a normal function and a pathological one: either hyperactive, which occurs only in the filling phase and is manifested by involuntary contractions of the detrusor, not suppressed by

volitional effort; or hypoactive, which occurs in the excretion phase and is manifested by a decrease or absence of contractile activity of the bladder, which leads to a violation of its emptying. The most extreme disorders of the storage and evacuation functions of the bladder are various forms of urinary incontinence. Currently, the most acceptable for use in pediatric urology is the classification of urinary incontinence proposed by Professor E.L. Vishnevsky (2001) [3]. Urinary incontinence: imperative (motor and sensory); stress (under tension); reflex; from overflow: small volume (up to 150 ml), medium volume (150-300 ml), large volume (more than 300 ml); combined. The most common type of urination disorder in children is overactive bladder (OAB) - a condition characterized by the presence of imperative urges, which can be accompanied by urgent urinary incontinence, frequent urination (> 8 urinations/day) and nocturia ( $\leq 1(2)$  urinations/night). According to various authors, about 50-100 million people worldwide suffer from OAB symptoms. Prevalence in Russia is 38%, among children - every fifth child has imperative forms of urination disorders. The incidence rate is 17.8%. The causes of the development of overactive bladder are reflected in its classification: neurogenic hyperactivity (old term - detrusor hyperreflexia), the presence of neurological pathology;

**OBJECTIVES:** Our scientific study was to analyze the results of complex treatment of patients with total and subtotal epispadias complicated by total and partial urinary incontinence.

#### **MATERIALS AND METHODS OF THE STUDY:**

Our study was conducted from 1995 to 2005 at the Republican Children's Scientific and Practical Center for Minimally Invasive Endovisual Surgery at the Tashkent Medical Academy. Our scientific study was based on the results of treating 34 patients with total and subtotal epispadias.

It is known that total and subtotal types of epispadias are the most severe types of deficiency, accounting for more than 75%. In such patients, the length of the penis is 2-2.5 times shorter than normal, the tip is twisted, and there is a natural inability to urinate. Therefore, in patients of this group, urinary incontinence is eliminated first, but only after that they undergo urethroplasty. To eliminate urinary incontinence in children, we used the sphincteroplasty operation proposed by Derzhavin. The technique of this operation is as follows: a carabial incision is made and the symphysis is opened, the joint cavity is



carefully separated from the surrounding tissues, the joint cavity is narrowed and sutured over the catheter. The disadvantage of this operation is that in this case an attempt is made to form a sphincter only in the area of the joint cavity; with significant diastasis of the symphysis, the two symphyses are sutured closer to each other.

Due to the indicated shortcomings, in the immediate results of our operations performed on 34 patients, complete urinary retention was achieved only in 19 cases (55.8%), and partial - in 6 cases (17.6%). Also in our study, good clinical results were obtained in 88.3% of cases (N.E. Savchenko, V.M. Derzhavin 1976). Two months after the operation, repeat radiography was performed in 16 of 34 patients (47.0%). It was noted that the symphysis diastasis was opened, as before the operation.

Six months after sphincteroplasty, Beknazarov Zh. and A. performed the operation "One-stage orthoneourethroplasty" at the suggestion of Z. Fakirov (author's certificate No. 249), which, although it allowed for straightening the penis and creating a urethra in one stage, did not affect the improvement of urinary retention.

### **CONCLUSIONS:**

Thus, we have obtained the following results

1. V. M. Derzhavin's sphincteroplasty, despite its relatively low-traumatic and physiological nature, gives non-conical results in 26.5% of cases.
2. Negative results of this operation are mainly associated with the imperfection of the technique of transverse symphysis suturing, and in 47.0% of patients with transverse symphysis suturing, diastasis returns to its previous state within 2 months after the operation. This condition is due to the tightening of the sutures.
3. Although a one-stage orthoneourethroplasty operation allows for straightening the penis and creating a urethra in one stage, it does not eliminate urinary incontinence.
4. Based on the above, it is recommended to improve the technique of joint approximation of the symphysis.

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