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IMPROVEMENT OF THE METHODS OF TREATMENT OF TOTAL AND SUBTOTAL FORM OF EPISPADIUS AS A CAUSE OF TOTAL URINARY INCONTINENCE.

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Abstract:

Purpose Of The Study: Improving the methods of treatment of total and subtotal forms of epispadias as a cause of total urinary incontinence**.**

Relevance:

Total urinary incontinence in children with various forms of epispadias and methods of its surgical treatment remains an urgent problem in pediatric surgery and in particular pediatric urology (G.A. Bairov, 1968; I.A. Akhmedzhanov et al., 1980; Zh.B. Beknazarov et al., 1992; V.A. Kovalev et al. In pediatric practice, after surgical correction of total epispadias and such complications as urinary incontinence, periurethral submucosal injections of Teflon and collagen into the bladder neck are widely used (Duffy P., 1998). In adults, "epispadias" disabled, there are reports of successful implantation of an artificial sphincter (Barret D., 1993; Hollowell J., 1991). Despite the numerous methods of treating urinary incontinence, they do not work in 20-60% of cases. The treatment of urinary incontinence remains one of the main medical and social tasks of the rehabilitation of patients with epispadias (Kovalev V.A., 2007; Ganda U., 1986; Stein P., 1994).

Keywords: Total and subtotal epispadias, total urinary incontinence.

INTRODUCTION:

Epispadias is a congenital splitting of the dorsal wall of the urethra [16; pp.9-11, 24; c.57-63, 74; c.2008]. Epispadias - refers to rare developmental anomalies. The incidence in boys is 1:20,000 newborns and in girls 1:50,000 [198]. In most cases, total epispadias is combined with bladder exstrophy. Unfortunately, about 1/3 of patients suffer from combined malformations of the upper urinary tract, cryptorchidism, testicular hypoplasia, and prostate gland. Although epispadias is a twin disease in relation to hypospadias, it is a much more severe and formidable pathology than hypospadias, even with the perineal form of hypospadias, it is not complicated by splitting of the symphysis and the sphincter apparatus of the bladder, which, in epispadias, are the causes of incontinence and urinary incontinence, which leads to aggravation of social adaptation of a growing organism. The etiology of epispadias has not been fully elucidated and is currently explained by teratogenic factors, the influence of radiation, chemical and toxic substances, infection, and dysvitaminosis [3; c.21-23, 18; c.28-32,23; pp.472-474].

Despite the rare occurrence of this malformation of the urinary tract, the severity of the condition and the poor quality of life of these patients makes specialists look for optimal methods for their correction and treatment.

All syndromes inherent in epispadias are socially significant and lead to disability already at a young age. This is the most severe malformation of the urogenital tract, both from a clinical and social point of view [2; p.34-37.12; p.515-531.16; p.9-11.23; p.472-474 ,26;c.9-21.32;c.61-67.68;c.20].

The complexity of the complex rehabilitation of this category of patients in adolescence and adulthood is associated with changing needs and deeper social motivations [30; p.57.34; p.160.44; p.10-13.45; p.37-39.52 ;c.101-104.60;c.175-176.63;c.262-263.68;c.20].

Many scientists have come to believe that the term "epispadias" was introduced into science by Chausses et Demerit in 1817. Epispadia - (from the Greek. Epispadia) means the absence of the dorsal wall of the urethra, the absence of the cavernous surface of the urethra, the rotation of the glans penis around its axis, the pulling of the skin of the penis upwards, the small size of the penis, total urinary incontinence and infertility. For a long time in the scientific and medical literature, there was an opinion that epispadias is a rare pathology. For example, Ranch (1897) reported on 20 examined patients with epispadias, M.M. Pytkevich (1912) - 37; Davis (1928) - 79. Under the supervision of I. A. Akhmedzhanov (1965 - 84) there were 83 patients diagnosed with urinary incontinence.

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According to the studies of A. Fakirov in 2004, during 1985-2004 at the Tashkent Institute of Pediatrics and ToshMA, 65 (0.21%) patients with epispadias of various forms were examined in pediatric surgery clinics. In recent years, there has been an upward trend in this pathology, which is associated primarily with subjective factors (ecology, stress, urbanization), as well as objective factors, with an improvement in the quality of medical services provided to the population and a rise in the medical culture of the population [25; c.3- 5.31; c.61-67.67; c.42].

According to Campbell (1952), epispadias occurs in one in 60,000 newborns. Hantan and Tomlin (1956) stated that epispadias occurs in 1 in 30,000 newborns.

The incidence of epispadias between the sexes is also controversial. According to Campbell (1952), the quantitative indicator between the sexes of patients with epispadias was equal. According to Benson (1962), epispadias in women occurs 2 times more often, according to Michalowski and Modelski (1963) 2.5 times, according to Dees (1949) 4 times, according to Gross (1952) 5 times, according to L.M. . Gorilovsky (1961) 7 times, and finally Young (1936) claims that epispadias occurs 10 times more often in men.

According to N.E. Savchenko and V.M. Derzhavin (1976), the sex ratio between boys and girls is 4:1 - 6:1. Given the above, it should be noted that the number of patients with this defect has increased in recent years and 75 - 80% of the total number of patients are boys [191;c.1675]. There are several anatomical forms of epispadias. Some authors distinguish 4 forms, while others distinguish 6. Some authors include bladder exstrophy in epispadias as its severe form [119;c.406-412].

There are differences in the definition of differences between the forms of male and female epispadias [27;c.47,44;c.10-13,53;c.39-41]. Currently, 4 main forms of epispadias are distinguished in the literature [23;c.472-474.53;c.39-41.126;c.210-220]:

1. Epispadias of the glans penis or clitoris. In boys, the urethra splits into 2 parts along the dorsal surface. Girls have a splitting of the head of the clitoris.
2. Epispadias of the body of the penis. In boys, the external opening of the urethra opens up to the articulate-pubic angle, in girls this process is localized a little higher. In both sexes, with epispadias of the head and clitoris, urinary incontinence is not observed.
3. Incomplete, subpubic or subtotal epispadias. In boys, the splitting of the urethra is observed up to the posterior urethra up to the inguinal fold. In girls, the clitoris and urethra are divided into two parts up to the inguinal fold; the anterior ends of the labia majora and labia minora are missing. In representatives of both sexes, the outer part of the urethra is ajar in the lower part of the symphysis. In these cases, partial or complete urinary incontinence is observed.
4. Complete or total epispadias. Cleavage captures the neck and anterior wall of the bladder.

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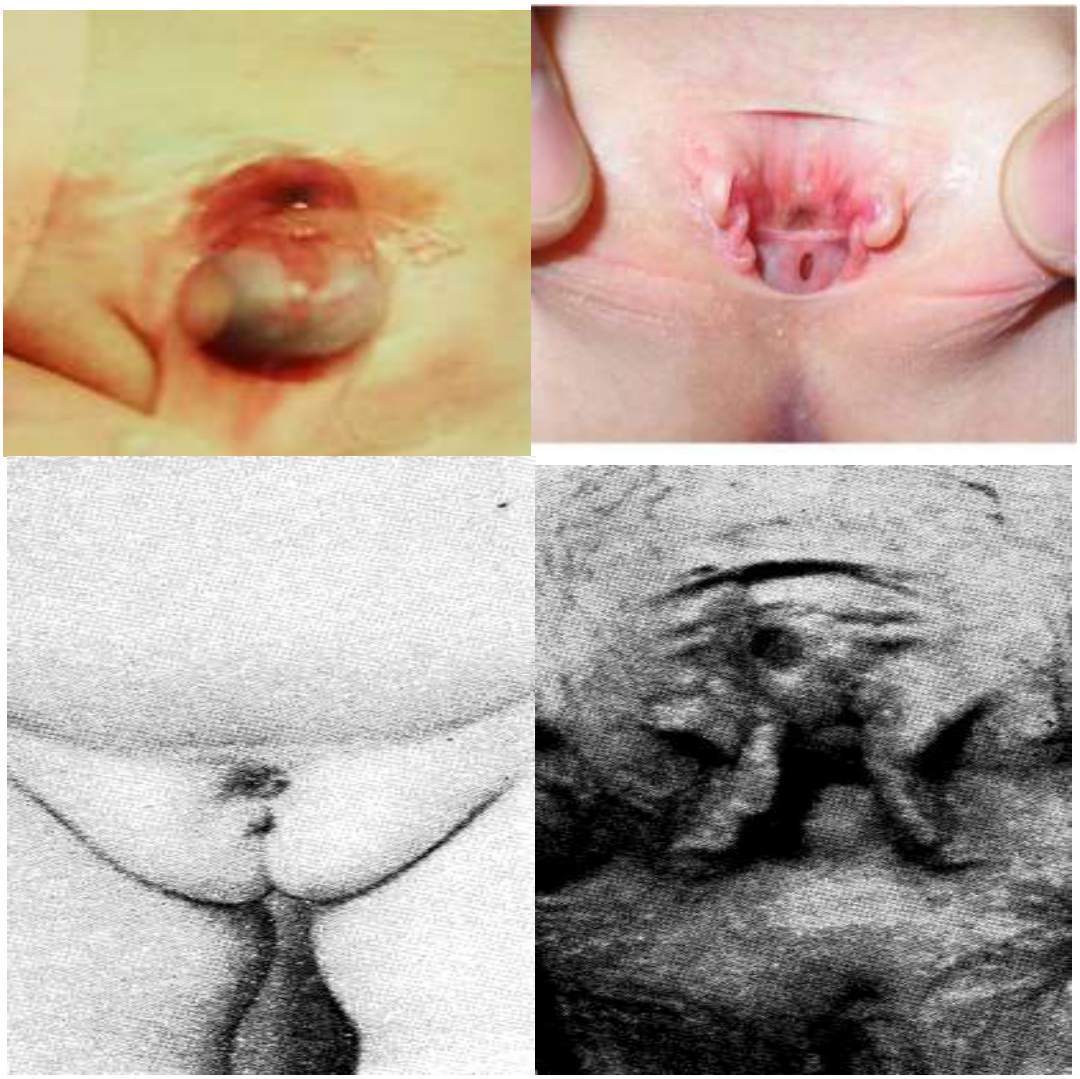

Picture 1. Forms of epispadias: a) capitate, b) stem, c) subtotal. d) total.

In women, the first two forms correspond to the splitting of only the head of the clitoris or the entire clitoris and the initial section of the urethra. In the last two forms of the disease, regardless of gender, the external opening is located under the pubic symphysis in the form of a funnel-shaped depression. These forms of epispadias are accompanied by partial (with subtotal) or complete (with total) urinary incontinence, which is observed in 85-90% of patients [193;c.137-141,165;c.1671-1674].

Epispadias of the head of the clitoris in girls gives rise to a number of controversial opinions. In girls, the absence of a urethral wall is somewhat relative, they do not have a similar anterior urethra, the absence of a wall refers to the posterior urethra [40;c.58-60,53;c.39-41,145;c.57].

Epispadias of the head of the clitoris was first described by Caution in 1875, then studied in detail by Rutherford. With this form of pathology, the head of the clitoris is split into two parts, the urethra is open a little higher, urination is not disturbed.

Scientific and medical literature has shown that epispadias of the head, body and subtotal type is 25% of the total type of 75% of the total number of patients [53;c.39-41]. Studies conducted in the Republic showed that the total type of epispadias is 23.0%, the subtotal type is 16.9%, and finally the total type and the total exstrophy associated with it are 60.0% [59; p.109-112.54; p.34 -36.71;c,78-80,170;c.174]. The combination of total epispadias with bladder exstrophy is 32.3% [71;c,78-80,193;c.185-190]. With the capitate form of epispadias, the penis flexes vertically and rotates around its axis, while the deformation is not pronounced. The main reason for seeking medical attention is urination with a poorly controlled spray jet.

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The splitting of the cavernous bodies is expressed to varying degrees. With the achievement of adulthood during an erection, the condition of the penis remains as described above, which does not interfere with living a sexual life.

With epispadias of the body of the penis, it is strongly deformed, the rotation increases, this is especially pronounced during erection [13; p. 98-101.31; p. 61-67.53; p. ,65; c.207]. All this complicates sexual life, but there are no problems with childbearing in the future. When urine is excreted, the jet is sprayed, the remains of urine drip onto the scrotum, thigh and clothes, in most cases the smell of urine comes from the patient, but he does not show any particular complaints. Due to the splitting of the cavernous bodies, the size of the penis is much smaller than that of peers [53;c,39-41,57;c.63-67,146;c.460].

With subtotal epispadias, the absence of the anterior wall of the urethra extends to the pubic region. In this group of patients, urine is sprayed more strongly, deformation of the penis is traced, its twisting and bending upwards can be traced. In some patients with a preserved sphincter, urinary incontinence may not be observed, but their sphincterometric indicators of sphincter tone are much lower [27;c.47,120;c.67-71].

With total epispadias, underdevelopment of the penis and its deformation are noticeable, the penis is shortened by 2–3 times, curved in length and along the axis, pulled up to the pubis and abdominal wall. With age, the child does not have a clear growth of the penis, its diameter does not change significantly. Due to the distance of the legs of the cavernous bodies, the penis is flattened and pulled up to the stomach, the rotation of the penis around its axis becomes noticeable, in most cases it is turned to the left. In such cases, in order to better examine the penis, it is necessary to tighten the skin of the foreskin. In front, the cavernous bodies are demarcated by the mucous membrane of the open urethra. The cavernous bodies are either underdeveloped or not developed at all. The seed tubercle is not developed. Depending on the age of the patient, the mucous membrane of the urethral groove varies between 0.7 - 1.5 cm.

The mucous membrane of the open part of the urethra passes to the skin. Thus, with total epispadias, the skin covers the penis only from 3 sides.

In some cases, the foreskin is missing. Arteria dorsalis penis with total epispadias is located at the ventral opening of the penis. Often, total epispadias is combined with bilateral cryptorchidism, an abdominal form, and polycystic kidney disease.

With total and subtotal forms of epispadias, the symphysis does not reach the midline, although the gap of the symphysis is not so remote, this circumstance causes deformation of the inguinal region.

In such patients, the mons pubis is squeezed out, in some cases there is a slight indentation. These changes are especially clearly observed in girls during puberty. According to various sources, the size of diastasis between the bones of the pubic joint on radiographs is different. According to N.A. Savchenko (1976), this figure was 2 - 6 - 8 cm (with a norm of 0.7 - 0.76 cm)

CONCLUSIONS:

In total and subtotal forms of epispadias, it is recommended to use a modified Derzhavin sphincteroplasty method, which consists in transverse sutures after a longitudinal two-row suture, and thus a knee is created on the bladder neck, which is an additional mechanism for urinary retention.

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