



## METHODS OF EXAMINATION OF PATIENTS SUFFERING FROM EPISPADIAS AND URINARY INCONTINENCE.

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### Abstract:

According to WHO, the number of children with congenital pathologies increases every year. If in 1984, 11.2% of newborns had such cases, then in 2004 this figure increased by 12.8%. Of course, there are objective and subjective reasons for this. The objective reasons include the development of medicine over the past 20 years, improved diagnostics, the creation of computed tomography, and timely high-quality ultrasound diagnostics. Subjective reasons include environmental problems, the widespread introduction of industrial chemistry into our lives, urbanization processes, the emergence of ozone holes in the atmosphere, and stress.

**Keywords:** Epispadias, urinary incontinence, examination methods

**OBJECTIVE:** To develop acceptable, painless and effective methods of examination of patients suffering from epispadias and urinary incontinence.

Patients suffering from epispadias and urinary incontinence, especially its severe form, underwent a complete examination upon admission to the hospital. First of all, a general blood and urine test was performed, the amount of electrolytes, urea and creatinine were determined, and the levels of ALT, AST, bilirubin, total protein and its fractions were determined. Among the electrolytes, the level of potassium, calcium, sodium, phosphorus and chlorine was determined. An electrocardiogram and coagulogram were studied in all patients.

Considering the fact that in the case of total epispadias with exstrophy of the bladder, a purulent-inflammatory process is often detected in the upper urinary tract and kidneys, urine tests were performed using the Nechiporenko, Amburge, Addis-Kakovsky, Zimnitsky and Reberg methods. Patients with identified pathology underwent a course of therapy with antibiotics and broad-spectrum uroseptics. In most cases, epispadias

was accompanied by concomitant pathologies of other organs and systems, therefore, additional studies of the chest, abdominal cavity and retroperitoneal space (X-ray contrast, ultrasound) were performed.

After the operation and removal of the drainage tube from the bladder, uroflowmetric examination was performed in children 3-4 months later. For these purposes, the urodynamic system of the DISA company was used. Subsequently, every 3-4 months in the dynamics of observation, the uroflowmetric examination was repeated, if necessary, a cystourethrogram was performed. Ultrasound studies were performed on the Japanese HITACHI - EVB - 406 device, with a 3.5 MHz convex sensor. To assess the anatomy and topography of the mucous membrane of the bladder and urinary tract, cystoscopy and urethroscopy were performed using the German KARL-STORZ device. Contrast cystography was performed after the operation to determine the shape, size, and volume of the bladder. A comprehensive examination showed that 21 patients (29.6%) with epispadias and bladder exstrophy had various combined pathologies (Table 1).

**Table 1**

**Epispadias and exstrophy of the bladder and their combination with other pathologies of organs and systems.**

Combination with other congenital malformations	Form of the disease						Total	
	Subtotal epispadias		Total epispadias		Total epispadias with bladder exstrophy			
	abc.	%	abc.	%	abc.	%	abc.	%
Congenital heart defect	-		1	1,4	1	1,4	2	2,8



Hypoplasia of the left kidney	-		-		1	1,4	1	1,4
Unilateral renal aplasia	-		-		2	2,8	2	2,8
Unilateral cryptorchidism	1	1,4	2	2,8	3	4,2	6	8,5
Anorchism	-				3	4,2	3	4,2
Unilateral inguinal-scrotal hernia	1	1,4	2	2,8	2	2,8	5	7,0
Polycystic kidney disease	-		-		2	2,8	2	2,8
<b>Total</b>	<b>2</b>	<b>2,8</b>	<b>5</b>	<b>7,0</b>	<b>14</b>	<b>19,7</b>	<b>21</b>	<b>29,6</b>

In 34 (47.9%) of 71 patients, various somatic diseases were diagnosed (See Table 2.)

All examined patients were divided into two groups depending on the method of previously performed surgical interventions.

The first group included 39 patients (54.9%) who underwent traditional sphincteroplasty, the second group included 32 patients (45.1%) who underwent sphincteroplasty according to Derzhavin and the operation to approximate the pubic symphysis in our modification.

**Table 2.**  
**Complications and associated acquired diseases in epispadias and bladder exstrophy.**

Somatic diseases	Forms of Epispadias						Total	
	Subtotal epispadias		Total epispadias		Condition after correction of bladder exstrophy			
	abc.	%	abc.	%	abc.	%	abc.	%
Chronic tonsillitis	-		2	2,8	3	4,2	5	7,0
Chronic pyelonephritis	-		-		2	2,8	2	2,8
Acute bronchitis	-		2	2,8	5	7,0	7	9,9
Acute pneumonia	1	1,4	1	1,4	2	2,8	4	5,6
Gastroenterocolitis	-		2	2,8	3	4,2	5	7,0
Acute cholecystitis	2	2,8	1	1,4	2	2,8	5	7,0
Acute polyarthritis	1	1,4	-		1	1,4	2	2,8
Acute cystitis	-		2	2,8	2	2,8	4	5,6
<b>Total</b>	<b>4</b>	<b>5,6</b>	<b>10</b>	<b>14,1</b>	<b>20</b>	<b>28,2</b>	<b>34</b>	<b>47,9</b>

Patients of both groups, after elimination of urinary incontinence, underwent one-stage orthoneourethroplasty and the integrity of the urethra

was restored. After the operation, its results were assessed by the presence or absence of patient



complaints, the quality of urine flow and the results of the urethrogram.

#### **CONCLUSION:**

Thus, timely methods of examination of patients allow not only to improve the treatment of epispadias, but also to develop comprehensive methods of examination of patients suffering from epispadias and urinary incontinence.

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