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APPLICATION OF MODIFIED BLADDER NECK PLASTIC SURGERY IN URINARY INCONTINENCE

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Abstract
In recent years, there has been a tendency for this pathology to increase, which is associated primarily with subjective factors (ecology, stress, urbanization), as well as objective factors, with the improvement of the quality of medical services provided to the population and the increase in the medical culture of the population [25; 3-5, 31; 61-67, 67; 42].
According to Campbell (1952), epispadias occurs in one in 60,000 newborns. Hantan and Tomlin (1956) claimed that epispadias occurs in one person in 30,000 newborns.

Keywords: Epispadias, bladder neck plastic surgery, Derzhavin operation.

Introduction:

It was believed that the first articles on epispadias were written by French surgeons Chaser and Demurely (1817). According to Davis (1928), the first to write and publish an article on epispadias was the French physician Arnaud (1761), who described the case history of a 12-year-old girl with congenital epispadias. Cases of epispadias in men were first described in 1770 by State. The first methods of unsuccessful treatment were described in the works of Buxton (1772) and Petit (1774).
More thorough studies in the treatment of epispadias were conducted by G. A. Savostitsky (1876). Today, this is not only a study of historical significance, it is also a method that has helped many patients with congenital total epispadias return to normal life. In many countries of the world, this method is called the Jung method. Jung developed and surgically eliminated total epispadias. Abroad, this operation was first performed by Lessen in 1878. In Russia, the first publications on male epispadias belong to F. I. Sinitsyn (1983).
Over the past 40-50 years, many original treatment methods have been proposed, but recently they have significantly decreased. Scientific research on the surgical correction of epispadias is also cited in the works of Russian scientists - I. A.

Akhmedzhanov (1985), Sh. T. Salimov (2001), Zh. B. Beknazarov (2007), A. T. Tadjibaev (2010), etc.

The main problem in severe forms of epispadias is the elimination of urinary incontinence and the creation of a urethra. Quite a lot of research has been done in this direction, but the problem has not yet found a complete solution [39; 1957, 58; 105-108,69; 109-112,74; 2008].

The surgeries for the correction of epispadias developed and proposed by various authors over the past century and a half can be divided into 5 distinct groups:

1. Surgeries to restore the urethra and external genitalia.
2. Elimination of urinary incontinence by creating mechanical obstacles.
3. Creation of an artificial sphincter using striated skeletal muscles.
4. Creation of a sphincter of the urinary bladder from nearby ligaments.
5. Elimination of urinary incontinence by diverting urine into the intestine.

But before these surgical interventions, efforts were made to conservatively treat epispadias. According to Stoical, urinary incontinence in epispadias was first treated conservatively by Minge and Gottingen. To reduce the size of the bladder neck, they injected hot liquefied paraffin into the submucosa several times. Later, human fat began to be used instead of paraffin. In 1908, Paulette used this method on a 14-year-old girl, but did not achieve any effect. Mayer injected a 16-year-old girl with human fat twice, and allegedly achieved the expected result, but later this method of conservative treatment did not bring any results in 3 women.

Wertheim (1919) used this method on a 7-year-old girl, but the patient developed a pulmonary infarction from fat embolism, which led to death. The method of thermal cauterization of the neck of the bladder was also used, but there was no effect.

Some authors tried to solve the problem of urinary incontinence in epispadias by restoring the sphincter, but to no avail.

Mayerschbach (1908) believed that prolonged faradization could achieve urinary retention, but did not achieve any effect. In severe forms of epispadias, conservative therapy methods are not effective, so they have become history today. In 1881, the Berlin doctor From Mel presented to the society of obstetricians and gynecologists a 26-year-old woman undergoing treatment for epispadias. By means of urethroplasty, the perineal muscles were mobilized on a pedicle, as a result of which the patient was able to hold urine for 3 hours. This method attracted the attention of surgeons, and many researchers began to implement it in practice. The most prominent specialist in this field was the doctor Goebel. In 1908, for these purposes, he used the rectus and pyramidal muscles of the anterior abdominal wall. In 1920, Stoical improved this method, for these purposes he used not only muscles, but also fascia. This innovation

led to an improvement in the innervation of the aponeurosis of the muscles and did not disrupt blood circulation. The Goebel-Stoical operation, known in scientific and medical literature, consists of the following: the skin around the bladder is cut in the center, the distance between the muscles is increased, the neck of the bladder is separated in a circular order from the surrounding fibers. The pyramidal muscle is released on both sides together with the aponeurosis and the fascia located under it, cut at the level of the umbilical cord, the free edges of the muscle collected together with the aponeurosis are wrapped around the neck of the bladder and remain in this position under the symphysis.

The effectiveness of this method has been proven by many authors. Schmidt performed this operation on 3 women in 1920 and achieved good results. Hammier (1921), Reifferscheid (1921) and Lick (1923) also noted the effectiveness of this method. Patients operated on with this method could hold urine up to 150-300 ml for 2-3 hours. The use of the Goebel-Stoical method in men did not give the expected results. T. Ya. Lapin (1940) used this method on a 19-year-old patient and achieved a satisfactory result, but urine retention was partial. Sharman (1950) operated on 4 boys with this method, but this operation had both positive and negative aspects. In recent years, many modifications of the Goebel-Stoical operation have appeared. In 1916, Shelter attempted to create a urinary bladder sphincter from the tender muscle of the thigh, Wertheim in 1919 from the levator ani muscle, in 1940, Z. I. Germanovich from the muscle that supports the scrotum, D. N. Atabekov from the muscles of the perineum, and G. A. Richter in 1962 attempted to create a sphincter from the outer-lateral part of the rectus abdominis muscle. There is very little information in the scientific and medical literature about the reliable results of these operations. For example, N. Savchenko (1976), after a thorough analysis of 50 operated patients, determined the ineffectiveness of this technique in 48% of cases. But the patients were observed for only 5 months. This is a very short period of time to draw conclusions. In most patients who underwent surgery, the sphincters cut from striated muscles functioned normally in the immediate postoperative period, but over time, due to deterioration of blood circulation, trophic disorders occurred, which led to sphincter dysfunction and subsequently to urinary incontinence.

F. Sinitsyn (1901), M. Gaza (1923), K. Figurnov (1936) came to the conclusion that this method of treatment has no future. N. Savchenko (1976), I. A. Akhmedzhanov (1984), Yu. Ulliev (1991), A. Suleimanov (1995) also joined this conclusion. N. Savchenko et al. (1976) examined 25 patients aged 4 to 15 years and created a sphincter of the urinary bladder from skeletal muscles, 18 of them were boys, 7 were girls, the results were positive for all, urinary incontinence was eliminated, and they were discharged

home in a satisfactory condition. But 3-9 months after the operation, urinary incontinence resumed in all patients. Histological examination in all patients revealed atrophy and scarring of skeletal muscles [53; p. 39-41].

In conclusion, it should be noted that the method of creating a sphincter from striated skeletal muscles has not justified itself, and therefore no doctor uses this method.

In the scientific and medical literature, the idea of creating a sphincter from muscle fibers of the bladder belongs to Young (1908). In his opinion, in severe forms of epispadias, the urethral groove reaches the anterior wall of the bladder and is replaced by connective tissue. This leads to inactivity of the bladder neck sphincter. Based on this, he advises to remove the fibrous fibers of the anterior wall of the bladder neck and restore the integrity of the sphincter. The results of his study were published in 1908 and remained unnoticed for a long time. And only in the 20s of the 20th century did interest in it increase again, the technique of this operation was improved and re-published.

It should be noted that the Russian doctor G. Savostitsky, 32 years before Jung, in 1876, successfully operated on a 29-year-old woman using this method. And in tribute to this operation, they called it the Savostitsky-Jung operation.

After the widespread use of this operation in practice in the treatment of severe forms of epispadias, a new era began. Cecil described cases of satisfactory outcome of the treatment of total epispadias using the Savostitsky-Jung method. D. Vvedensky (1934) described cases of successful treatment of a 4-year-old boy and a 5-year-old girl, Gautier (1934) – a 5-year-old boy, Fernando (1941) – a 10-year-old boy, Hubnot (1957) – a 27-year-old man, Laskowniski in 1964 – a 12-year-old boy. L. Gorlikovsky described cases of successful treatment of 18 patients. Sporty and Cesena (1964) successfully treated 11 out of 15 patients, Baling (1964) treated 3 out of 4 patients with urinary incontinence. Swenson (1959), Michalowski (1959) and I.S. Dimitrov (1960) described this method as the most effective in various manuals and textbooks and recommended it to all surgeons.

Covisa (1922) spoke highly of this method, but several years later noted that this method did not always achieve satisfactory results. Deming (1926), Mushat (1927) also described the futility of this method. Plastunov M. (1957) announced unsatisfactory results of such operations in 7 patients with total epispadias. It follows that only 4 (57.1%) of the total number of operated patients achieved a positive result. After this, Dees in 1942, Campbell in 1952 and Gross in 1953 announced their modification. Goncharov A.A. (1964) operated on 40 patients using the Younga method modified by Dees and Campbell, 10 patients achieved a positive result, 75.0% had a negative result. According to Savchenko N.E. (1976) in medical literature this method of operation

was used in 170 patients, of which only 78 (46%) had urinary incontinence eliminated. During repeated surgery only 13% of patients achieved a positive result.

Conclusion:

To date, none of the proposed methods meet the requirements of the present time. These methods have been critically assessed and have only historical significance.

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