



IMPROVEMENT OF SURGICAL TREATMENT OF DISTAL FORMS OF HYPOSPADIAS

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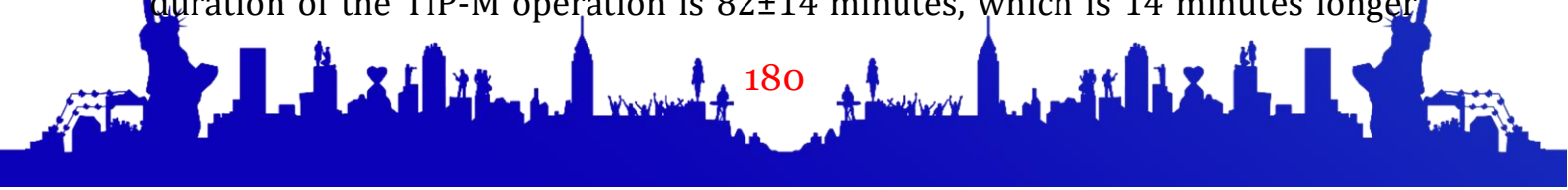
Relevance. Distal hypospadias is one of the most severe penile malformations. According to publications by various authors, a significant increase in this condition has been noted over the past 40 years. While in the 1970s, the incidence of hypospadias in boys was 1 in 500-600 newborns, according to international authors, currently, researchers estimate the incidence to be 1 in 200 children [1, 2, 5].

Surgical treatment of hypospadias remains a complex issue in modern pediatric urology, requiring highly skilled surgeons and the use of modern technical solutions. Despite the existence of over 300 different surgical correction techniques, the problem of choosing the optimal approach to treating distal hypospadias remains pressing. The complication rate for different techniques varies from 5% to 50%, with late complications requiring repeated interventions developing in 5-15% of patients [3, 4].

The aim of the study: to improve the tactics of surgical treatment of distal forms of hypospadias in children.

Materials and Methods. The original modification of TIP-M was developed in 2022 based on an analysis of the limitations of the classic TIP technique in 58 patients and the desire to improve treatment outcomes under unfavorable anatomical conditions. The key principle of TIP-M is to limit the depth of dissection of the urethral plate to 2 mm, followed by replacement of the resulting defect with a vascularized flap from the inner layer of the foreskin. The TIP-M technique was used in 56 patients (29.3% of the total number of patients operated on) between 2022 and 2023. The average patient age was 6.4 ± 3.8 years. Indications for the use of the author's modification were determined based on a comprehensive assessment of anatomical features and the prediction of difficulties with standard techniques.

Results. Analysis of the results of using the classical TIP technique in our practice and a review of international literature data revealed a number of limitations that may negatively impact treatment outcomes for certain categories of patients. This served as the basis for the development of the author's modification of TIP-M, aimed at improving the results of surgical treatment of distal forms of hypospadias by optimizing the technical aspects of the operation. The average duration of the TIP-M operation is 82 ± 14 minutes, which is 14 minutes longer





than the classical TIP, but the increase in time is justified by the complexity of the reconstruction and the need to perform additional stages.

Conclusion: The developed modification offers a number of technical advantages that enhance the effectiveness of surgical treatment. Improved vascularization of the neourethra is achieved by using a well-perfused flap from the inner foreskin. This is especially important in cases with unfavorable local conditions, where standard techniques do not provide adequate blood supply. The increased width of the neourethra allows for modification with narrower urethral plates, expanding the indications for using TIP principles. This is particularly relevant for patients with coronal and distal-stem hypospadias. Reducing tissue tension is achieved by using an additional material in the form of a vascularized flap, which reduces the risk of suture dehiscence and neourethral stricture formation.

Better conditions for epithelialization are created by using the mucous tissue of the inner foreskin, which is more resistant to urine and epithelializes more quickly..

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