



VARICOCELE IN ADOLESCENT PATIENTS: CLINICAL COURSE AND EARLY DIAGNOSIS OPPORTUNITIES

Durdiyev Sarvarbek Hayitboy ugli

Assistant at the Department of Pediatric Surgery, Anesthesiology and
Resuscitation, Urgench State Medical Institute(Uzbekistan)

<https://orcid.org/0009-0008-1691-2035>

<https://doi.org/10.5281/zenodo.18622220>

ARTICLE INFO

Received: 10th February 2026

Accepted: 11th February 2026

Online: 12th February 2026

KEYWORDS

To determine the clinical course of varicocele in adolescent patients. To assess possible complications and its impact on reproductive functions. To study the possibilities of early detection of varicocele and effective diagnostic methods

ABSTRACT

Varicocele is the most common scrotal vein dilation in adolescents, which can have a negative impact on reproductive health. In young children, it is often asymptomatic and goes undetected at an early stage. Therefore, early diagnosis and monitoring are important for preserving reproductive functions. Varicocele is noted as one of the main causes of infertility among adolescents, therefore its clinical course, diagnostic and treatment strategies are an urgent scientific and clinical issue.

Introduction

Varicocele is the most common scrotal vein dilation in adolescents, which can have a negative impact on reproductive health. In young children, it is often asymptomatic and goes undetected at an early stage. Therefore, early diagnosis and monitoring are important for preserving reproductive functions. Varicocele is noted as one of the main causes of infertility among adolescents, therefore its clinical course, diagnostic and treatment strategies are an urgent scientific and clinical issue.

Objective

To determine the clinical course of varicocele in adolescent patients. To assess possible complications and its impact on reproductive functions. To study the possibilities of early detection of varicocele and effective diagnostic methods.

Methods

The study was conducted on the basis of retrospective and prospective observation. 150 adolescent patients aged 12–18 years underwent scrotal examination. Physical examination (palpation with Valsalva maneuver) and Doppler ultrasound were used for diagnosis. The degree and laterality of varicocele were determined and compared with reproductive markers (testosterone levels, sperm parameters, if available).

Results and Discussion

90% left-sided, 10% right-sided or bilateral. Patients with venous regurgitation detected by Doppler ultrasound were also recorded in cases not detected by palpation at an early stage. 15% of patients had a testicular volume difference of >2 ml, which indicated a risk of reduced

reproductive function. The results of the study show that varicocele in adolescence is most often grade III and on the left side, which is consistent with international data. Doppler ultrasound allows for early detection, which helps to prevent reproductive complications. It should be noted that physical examination is only effective in detecting grade III varicocele, while ultrasound is necessary for grades I–II. Early diagnosis and monitoring at 12–18 years of age play an important role in reducing reproductive complications of varicocele.

Conclusion

Varicocele in adolescent patients is most often found on the left side and in the III degree. In the early stages, varicocele is often asymptomatic, so physical examination alone is not enough. Doppler ultrasound is the most effective method for early diagnosis. Early detection and monitoring ensure the preservation of reproductive functions and reduce the risk of infertility..

References:

- 1.Durdiyev, S. (2026, January). CLINICAL COURSE AND DIAGNOSIS OF OMPHALOCELE-GASTROSCHISIS IN NEWBORNS. In International Conference on Health & Technology (Vol. 2, No. 1, pp. 80-82).
- 2.Ruzmatov, I., & Durdiyev, S. (2026, January). CHOICE OF TREATMENT METHODS FOR GASTRASHYSIS AND OMPHALOCELE IN INFANTS. In International Conference on Health & Technology (Vol. 2, No. 1, pp. 83-85).
- 3.Bakhtiyorovich, R. I., & Hayitboy o'g'li, D. S. (2026). Compilation of an Algorithm for Prenatal Identification and Management of Anterior Abdominal Wall Button Defects in Infants. Spanish Journal of Innovation and Integrity, 50, 90-92.
- 4.Bakhtiyorovich, R. I., & Hayitboy o'g'li, D. S. (2026). Prenatal Diagnosis of Gastroschisis and Selection of the Most Optimal Treatment Tactics in a Perinatal Center Setting. Spanish Journal of Innovation and Integrity, 50, 86-89.
- 5.Bakhtiyorovich, R. I., & Hayitboy o'g'li, D. S. (2026). Diagnosis and Treatment of Gastroschisis in Newborns. Spanish Journal of Innovation and Integrity, 50, 83-85.
- 6.Bakhtiyorovich, R. I., & Hayitboy o'g'li, D. S. (2026). Development of an Algorithm for the Treatment and Management of Infants Born with Omphalocele and Gastroschisis. Spanish Journal of Innovation and Integrity, 50, 93-95.