CHAPTER 18

MANAGEMENT OF VARICOCELE IN ADOLESENCE PATIENTS

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The aim of varicocele treatment in adolescents is to keep gonadal functions and semen parameters to the maximum. As a result, it is aimed not to impair fertility in adulthood (1). Management and treatment of varicocele in childhood and adolescence are poorly defined and still debated as adolescents with varicocele are highly heterogeneous, due to rapid changes in hormone levels and the stage of pubertal development (2). Which of the adolescents with varicocele should be treated, when to start the treatment and which treatment method to choose are still a controversial issues. Firstly, adolescent and his family should be informed in detail about varicocele and surgical treatment by the pediatric urologist.

TREATMENT INDICATIONS

As the indications for varicocelectomy in adolesence are not clear, this makes a standard approach more difficult to these patients. Difference in right and left testis sizes, scrotal pain, hormonal values and, if possible, semen analysis parameters are considered important factors that can be used in the decision of varicocelectomy (3). However, the data regarding these parameters are sometimes conflicting. Testicular hypotrophy or testicular growth arrest is mostly considered the first indication to correct varicocele in pediatric age (4-7). In last EAU

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Table 1. Varicocele surgical tecniques: pros and cons (30).

Tecnique	Pros	Cons
Open retroperitoneal high ligation (Palomo)	Complete ligation	General anesthesia, Higher hydrocele risk
Microsurgical lymphatic sparing Palomo	Complete ligation Lower hydrocele risk Less invasive (local anesthesia)	Access to operating microscope
Microsurgical subinguinal or inguinal surgery	Lower recurrence rate Lower hydrocele risk	Access to operating microscope
Laparoscopic surgery	Bilateral varicocele Higher magnification Lower recurrence rate	High cost More invasive (intraperitoneal) General anesthesia
Sclero-embolization	Minimally invasive Short time Outpatient	Limited applicability Higher recurrence rate Radiation exposure

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