EAU Guidelines on Paediatric Urology

Phimosis and undescended testes

Phimosis

EPIDEMIOLOGY, AETIOLOGY:

At the end of the first year of life, retraction of the foreskin is possible in approximately 50% of boys. This increases to approximately 89% by the age of 3 years. The incidence of phimosis is 8% in 6 to 7 year olds and 1% in males aged 16 to 18 years.

Phimosis is either primary with no sign of scarring, or secondary (pathological) due to scarring such as balanitis xerotica obliterans (BXO).

DIAGNOSTIC EVALUATION:

The diagnosis of phimosis and paraphimosis is made by physical examination: prepuce is not retractable, or only partly retractable, and shows a constrictive ring on drawing back over the glans penis.

Paraphimosis is characterised by a retracted foreskin with the constrictive ring localised at the level of the sulcus, which prevents replacement of the foreskin over the glans. **Must be regarded as an emergency situation.**

MANAGEMENT:

Forceful preputial retraction should be discouraged to avoid cicatrix formation.

Summary of evidence	LE
Treatment for phimosis usually starts after two years of age or according to caregivers' preference.	3
In primary phimosis, conservative treatment with a third generation corticoid ointment or cream is a first-line treatment with a success rate of more than 80%.	1b

Recommendations	LE	Strength rating
Offer corticoid ointment or cream to treat primary symptomatic phimosis.	1b	Strong
Circumcision will also solve the problem.	2b	Strong
Treat primary phimosis in patients with recurrent urinary tract infection and/or with urinary tract abnormalities.	2b	Strong
Circumcise in case of lichen sclerosus or scarred phimosis.	2b	Strong
Treat paraphimosis by manual reposition and proceed to surgery if it fails.	3	Strong
Avoid retraction of asymptomatic preputial adhesions.	2b	Weak

A corticoid ointment or cream (0.05-0.1%) can be administered twice a day over a period of 4-8 weeks. This treatment has neglectable side effects and the mean blood cortisol levels are not significantly altered.

Plastic circumcision has the objective of achieving a wide foreskin circumference with full retractability, while the foreskin is preserved. This procedure carries the potential for recurrence.

Absolute indications for circumcision: secondary phimosis, recurrent balanoposthitis and urinary tract infections. Simple ballooning of the foreskin during micturition is not a strict indication.

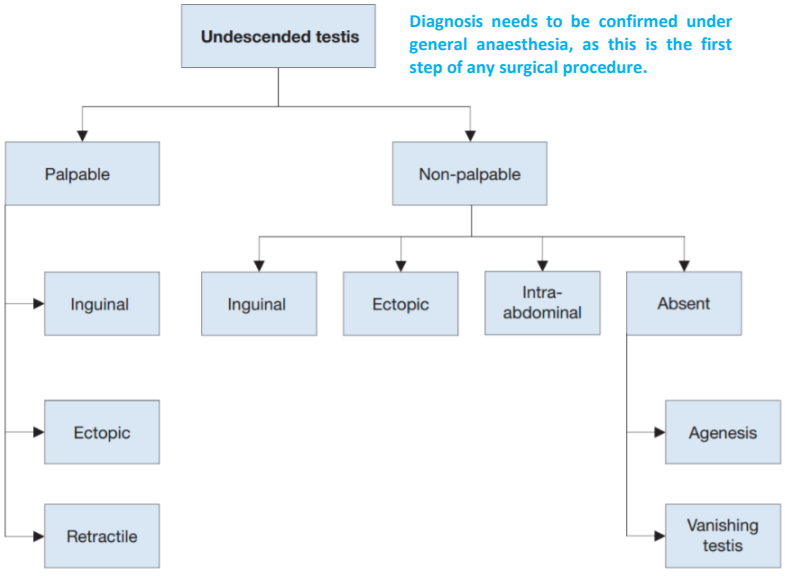
Undescended testes/ cryptorchidism

EPIDEMIOLOGY, BACKGROUND:

Incidence varies on gestational age, affecting 1-4.6% of full-term and 1.1-45% of preterm neonates. Nearly 1% of all full-term male infants still have undescended testes at one year.

May affect both sides in up to 30% of cases. In these cases and if any sign of disorders of sex development is present, urgent endocrinological and genetic evaluation is required.

CLASSIFICATION:



Diagnosis needs to be confirmed under general anaesthesia, as this is the first step of any surgical procedure.

DIAGNOSTIC EVALUATION:

History taking and physical examination are key in diagnosis.
Localisation imaging studies are usually without additional benefit.

MANAGEMENT:

Summary of evidence	LE
An undescended testis justifies treatment early in life to avoid loss of spermatogenic potential.	2a
A failed or delayed orchidopexy may increase the risk of testicular malignancy later in life.	2a
The earlier the treatment, the lower the risk of impaired fertility and testicular cancer.	2a
In unilateral undescended testis, fertility rate is reduced whereas paternity rate is not.	1b
In bilateral undescended testes, fertility and paternity rates are impaired.	1b
The treatment of choice for undescended testis is surgical replacement in the scrotum.	1b
The palpable testis is usually treated surgically using an inguinal approach.	2b
The non-palpable testis is most commonly approached laparoscopically.	2b
There is no consensus on the use of hormonal treatment.	2b

Recommendations	LE	Strength rating
Do not offer medical or surgical treatment for retractile testes instead undertake close follow-up on a yearly basis until puberty.	2a	Strong
Perform surgical orchidolysis and orchidopexy before the age of twelve months, and by eighteen months at the latest.	2b	Strong
Evaluate male neonates with bilateral non-palpable testes for possible disorders of sex development.	1b	Strong
Perform a diagnostic laparoscopy to locate an intra-abdominal testicle.	1a	Strong
Hormonal therapy in unilateral undescended testes is of no benefit for future paternity.	2a	Strong
Offer endocrine treatment in case of bilateral undescended testes.	4	Weak
Inform the patient/caregivers about the increased risk of a later malignancy with an undescended testis in a post-pubertal boy or older and discuss removal in case of a contralateral normal testis in a scrotal position.	3	Weak