

Undescended Testis

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Introduction

- An undescended testis is one which has failed to descend to the scrotum & is retained at any point along the normal path of descent.
- Unilateral - Right side: 70%
 - Left side: 30%
- Bilateral: 10%

Incidence – In full term infants, the incidence is 2.7 – 5.9% at birth but decreases to 1.25 – 1.8% by 1 year of age.

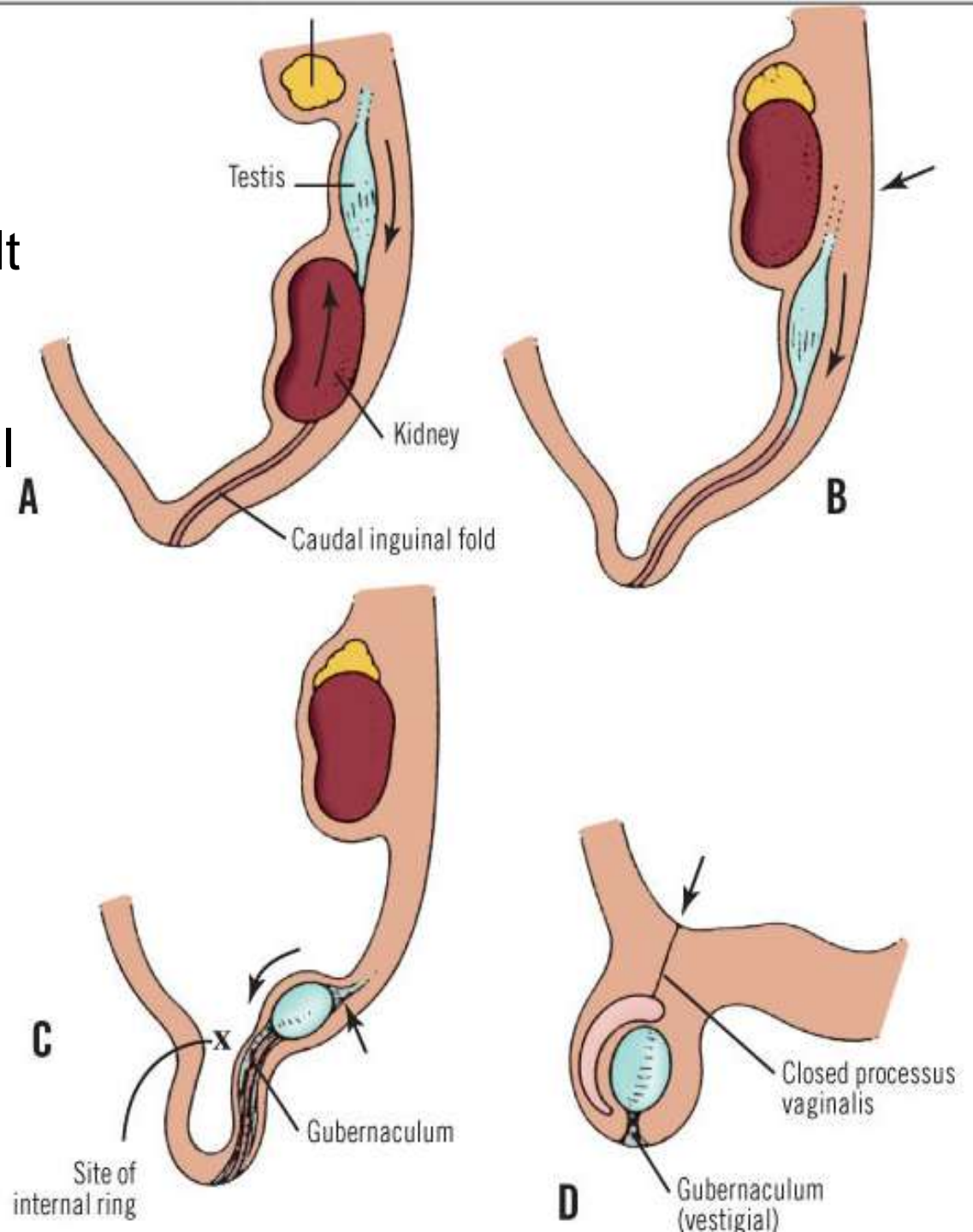


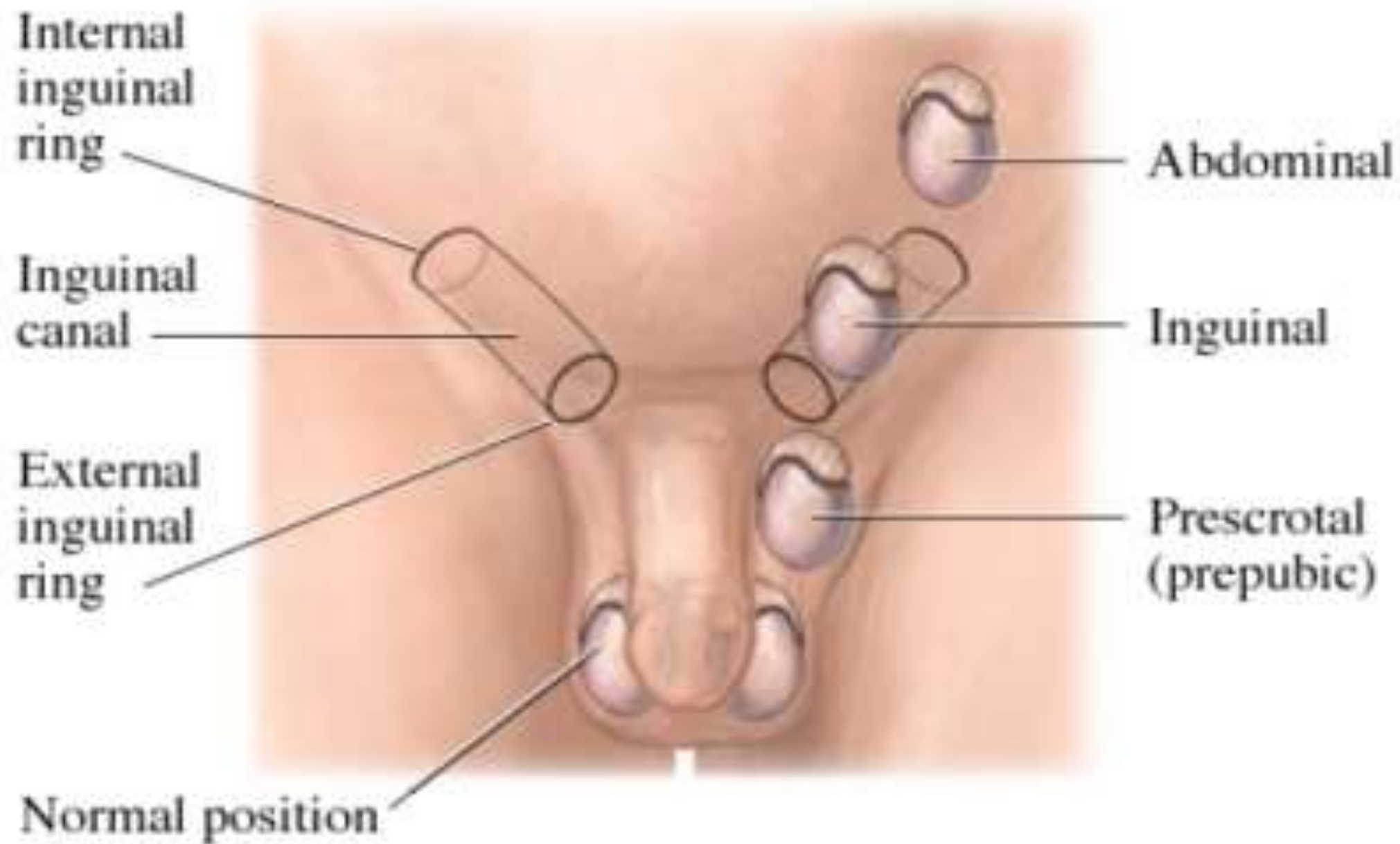
A. 5th week, testis begins its primary descent; kidney ascends.

B. 8th-9th weeks. Kidney reaches adult position.

C. 7th month, testis at internal inguinal ring; gubernaculum (in inguinal fold) thickens and shortens.

D. Postnatal life.





Types of undescended testis

- Inguinal: testis is in the inguinal canal
- At the superficial inguinal ring
- Scrotal testis:
 - the testis lies in the upper part of the scrotum
- Lumbar testis
- Iliac testis: testis remains just deep to the deep inguinal ring

Undescended testis: Clinical Features

Symptoms

- Underdeveloped scrotum
- Infertility
- Indirect inguinal hernia

Undescended testis: C/F

Signs

- Empty scrotum

Radiological investigations

- Ultrasonography
- CT Scanning
- MRI
- Most pediatric surgeons, however, probably operate without obtaining such tests.

Undescended testis: complications

- Torsion of the testis
- Epididymo- orchitis
- Atrophy
- Infertility
- Malignancy

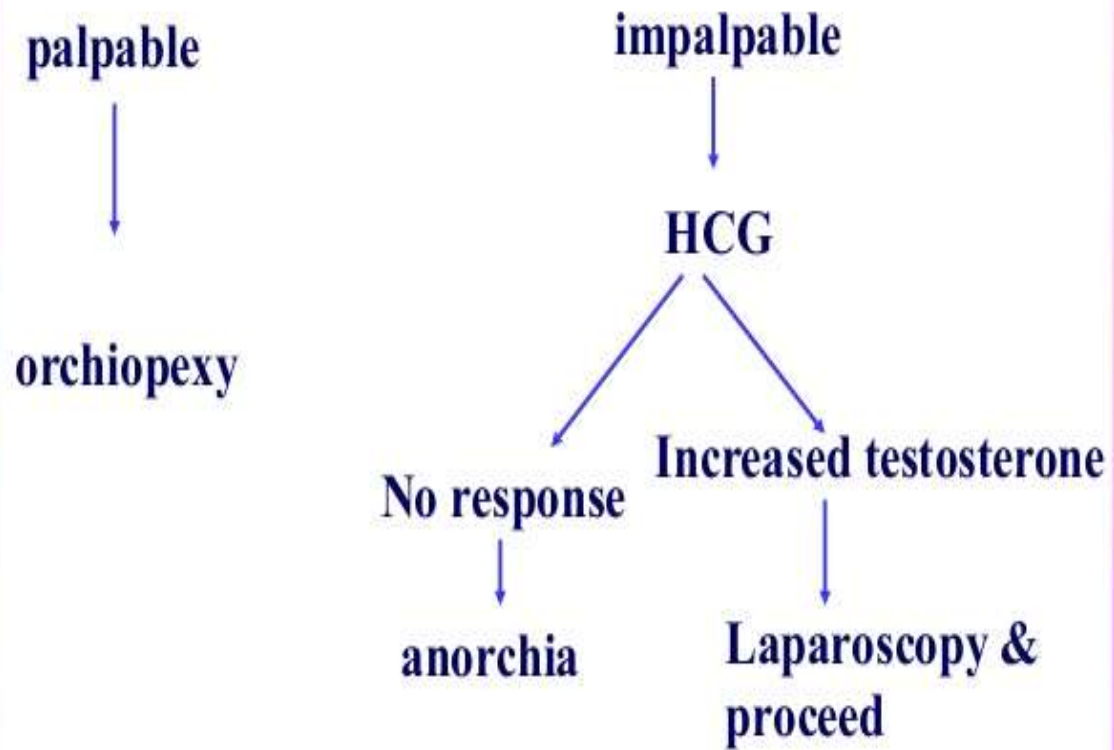
Undescended testis: Management

- Hormone therapy
- Orchidopexy
- Orchiectomy
- Laparoscopic surgery

Undescended testis: Hormone therapy

- Not used routinely
- Indications:
 - When the surgeon is not sure whether the case is one of retractile testis or not
 - Bilateral incomplete descended testis associated with hypogenitalism & obesity
- The hormone mostly used is human chorionic gonadotrophin

Surgery - bilateral



Management of Cryptorchidism

- Proper identification of the anatomy, position, and viability of the undescended testis
- Identification of any potential coexisting syndromic abnormalities
- Placement of the testis within the scrotum in timely fashion to prevent further testicular impairment in either fertility potential or endocrinologic function
- Attainment of permanent fixation of the testis with a normal scrotal position that allows for easy palpation
- No further testicular damage resulting from the treatment.

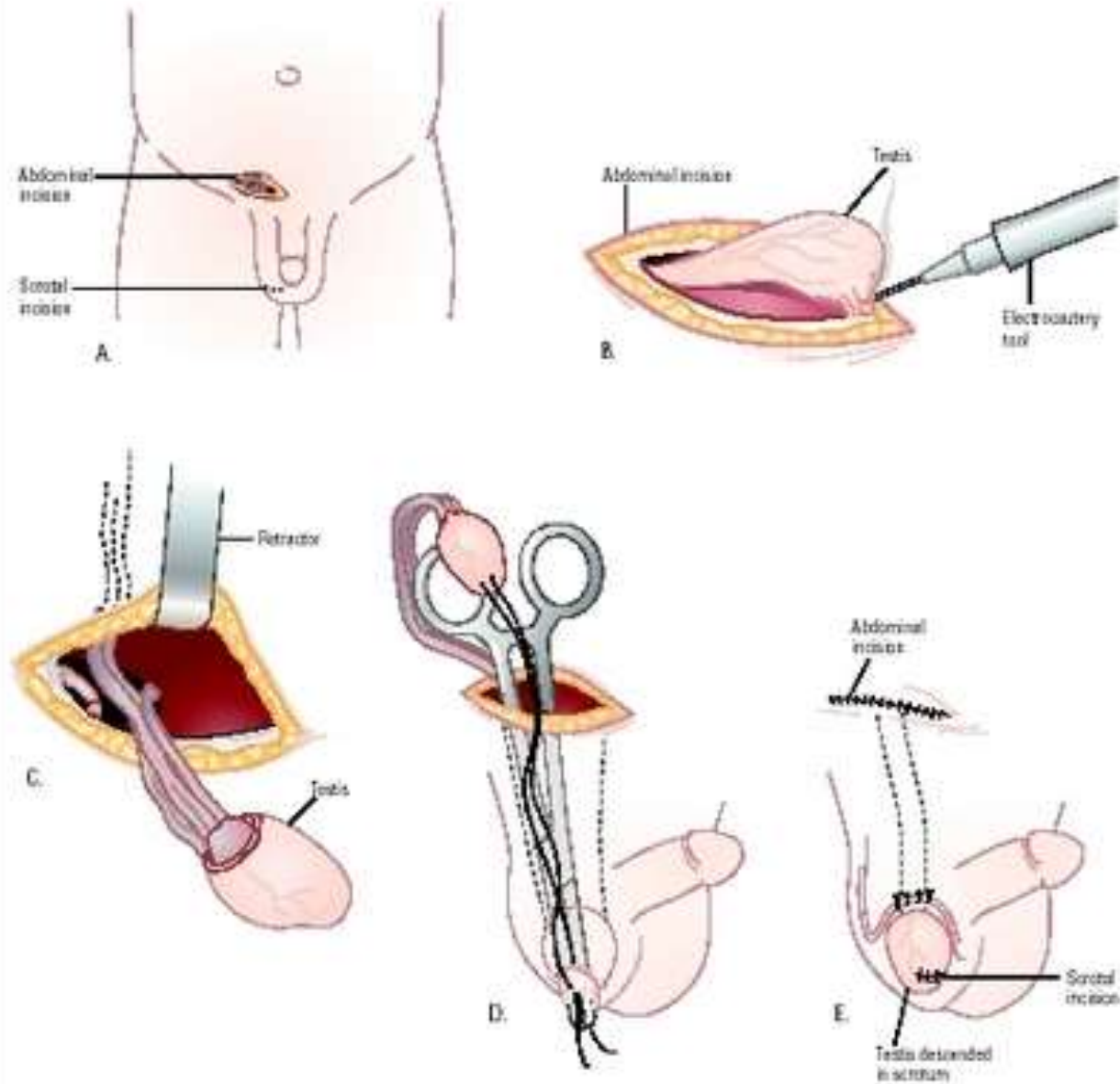
Definitive treatment of an undescended testis should take place between 6 and 12 months of age.

Standard Orchiopexy.

The key steps in this procedure are -

- (1) Complete mobilization of the testis and spermatic cord.
- (2) Repair of the patent processus vaginalis by high ligation of the hernia sac.
- (3) Skeletonization of the spermatic cord without sacrificing vascular integrity to achieve tension-free placement of the testis within the dependent position of the scrotum and
- (4) Creation of a superficial pouch within the hemiscrotum to receive the testis.

Orchiopexy



Complications of Orchiopexy

- Testicular retraction
- Hematoma formation
- Ilioinguinal nerve injury
- Postoperative torsion (either iatrogenic or spontaneous)
- Damage to the vas deferens and
- Testicular atrophy

THANKS