

Hydrocele

Definition – a hydrocele is an abnormal collection of serous fluid in some part of the processus vaginalis usually the tunica.

Types –

- 1.Primary- there is no associated disease in testis or epididymis.
- 2.Secondary- when hydrocele is sec. to any disease of testis or epididymis. It is small and lax.

The scrotum

fascia; and (5) the internal spermatic fascia. The

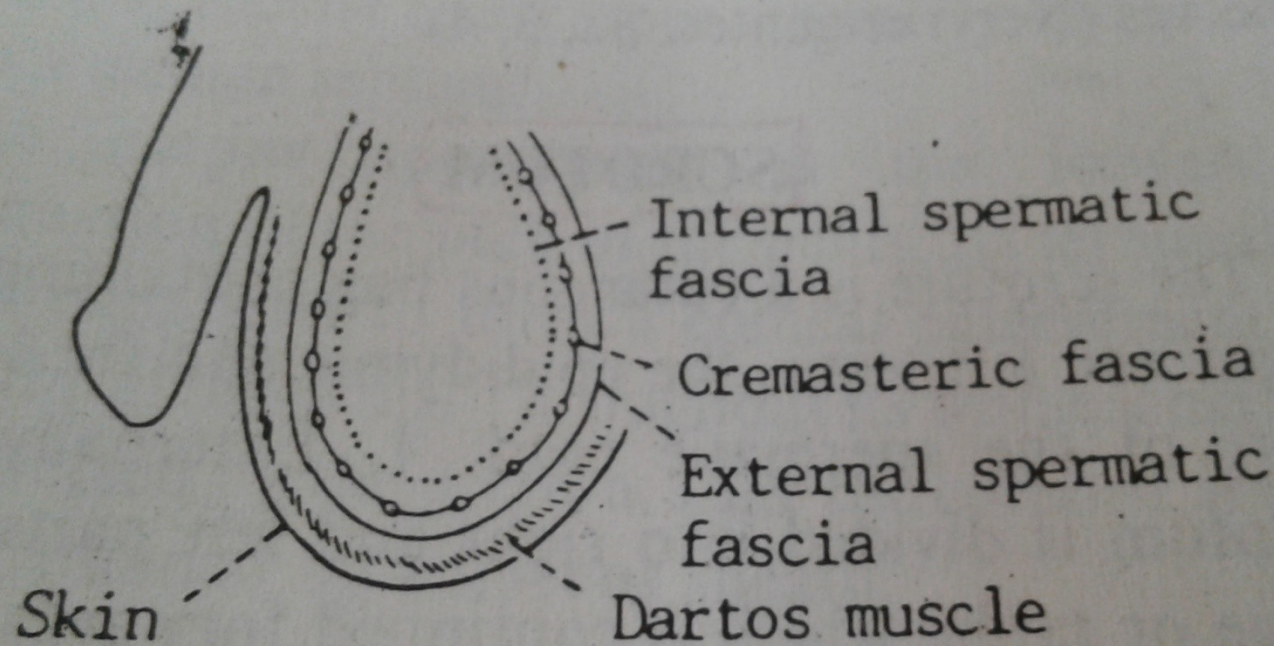


Fig. 17.4. Layers of the scrotum.

The testis

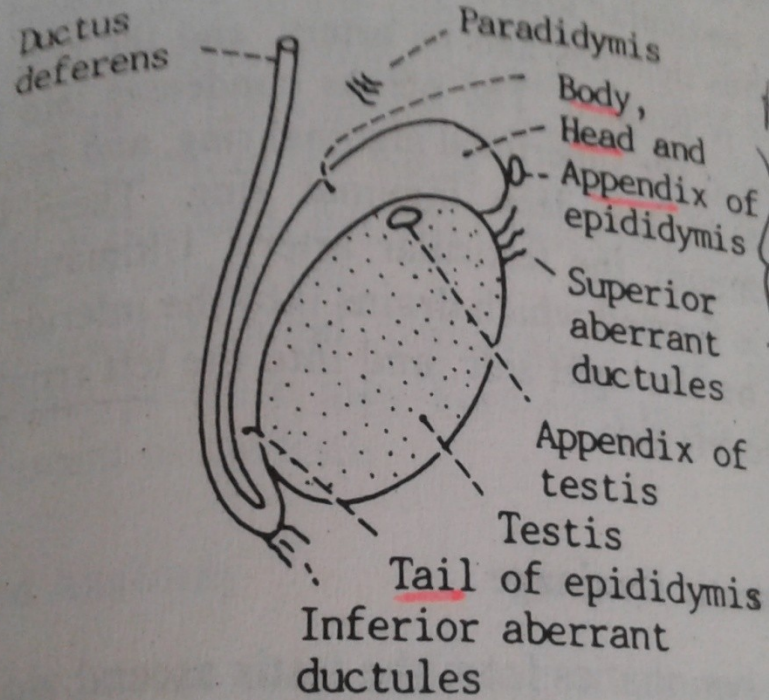


Fig.-17.6. Side view of the testis and epididymis; with the embryonic remnants present in the region.

side to inside, these are the tunica vaginalis, tunica albuginea and the tunica vasculosa. The tunica vaginalis represents a persistent portion of the processus vaginalis invaginated by the testis from the abdominal cavity in between. It covers the whole for its posterior border. The tunica albuginea is a dense coat covering the testis all around the visceral layer of the tunica albuginea is thickened to form a vertical septum, called the mediastinum which is wider above than below. It extends from the mediastinum of the testis into 200 to 300 lobules. The tunica vasculosa is the innermost coat of the testis lining its

The testis

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SECTION 2: ABDOMEN

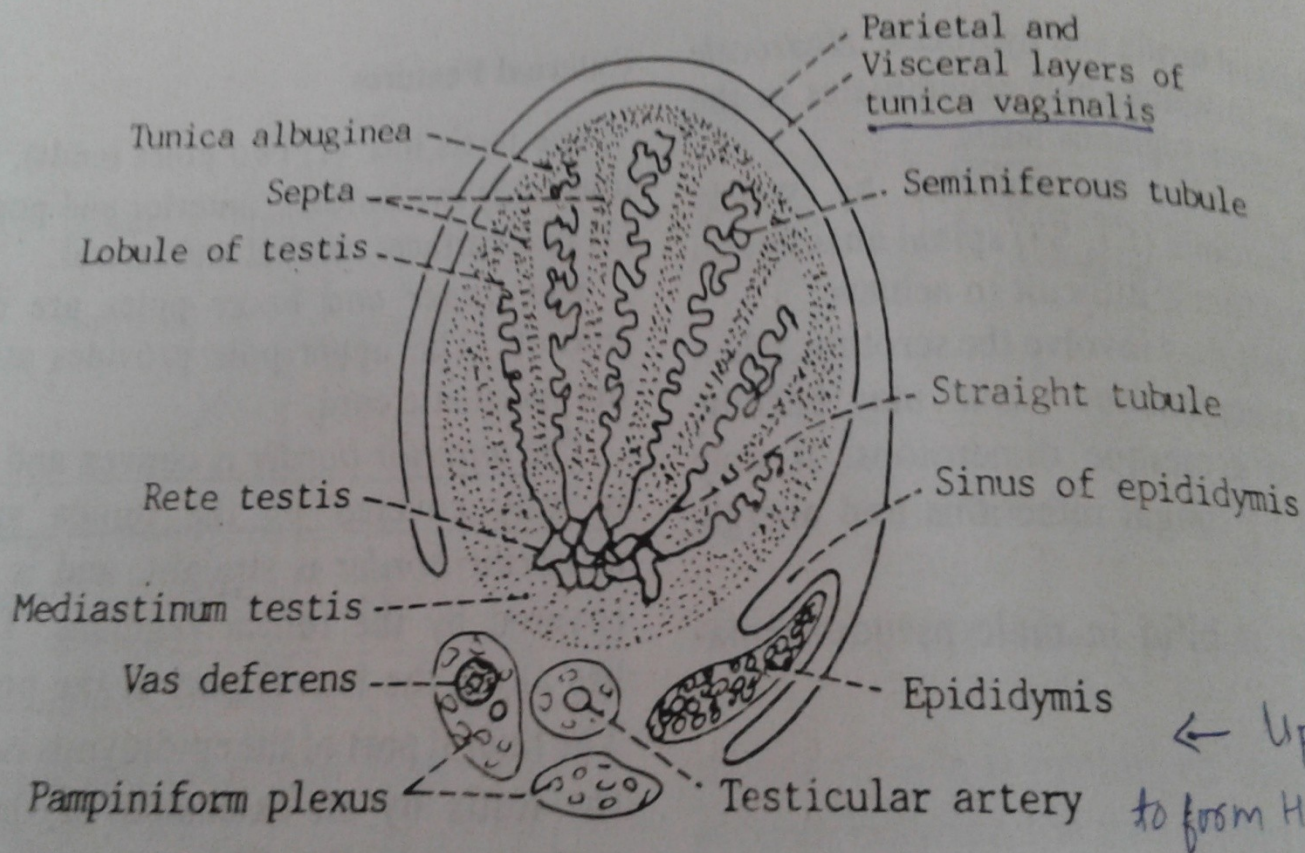


Fig. 17.7. Transverse section through the right testis and surrounding structures.

Processus vaginalis

- It is a peritoneal diverticulum dragged down by the testis during its descent from the abdomen to the scrotum.
- After the testicular descent is completed, the processus vaginalis becomes occluded at two points soon after birth – first at the deep inguinal ring and secondly- just above the testis leaving behind a part of sac in relation to the testis which is known as the ***Tunica vaginalis*** of the testis.
- Tunica vaginalis surrounding the testis has two layers- the visceral layer and the parietal layer.
- The portion of P. Vaginalis between the two occlusions is known as ***funicular process***, which normally becomes obliterated forming a fibrous cord ,the redundant of P. Vaginalis.
- In some cases this process of occlusion may not take place and the persistence of the processus vaginalis is the principal factor in the development of congenital hernia and hydrocele.

Hydrocele

Primary hydrocele –

1. Vaginal hydrocele – commonest
2. Encysted hydrocele of the cord.
3. Infantile hydrocele.
4. Congenital hydrocele.
5. Funicular hydrocele.

Vaginal hydrocele –

There is abnormal accumulation of serous fluid within the tunica vaginalis.

Aetiology-

- Defective absorption of hydrocele fluid by the tunica vaginalis.
- Excessive production of fluid within tunica vaginalis.
- Interference with drainage of fluid by the lymphatic vessels of the cord.

Types of hydrocele

Idiopathic or secondary to testicular disease. Hydroceles are primary or

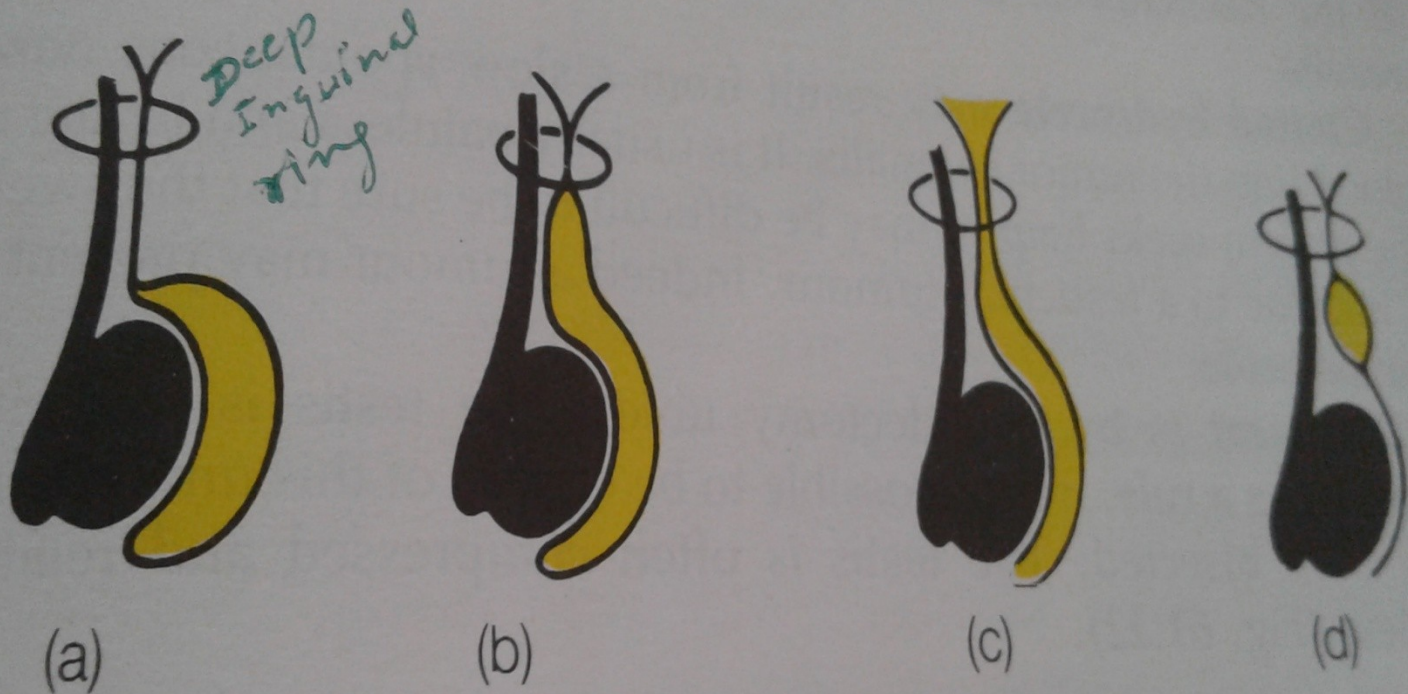


Fig. 61.8 (a) Vaginal hydrocele (very common); (b) 'infantile' hydrocele (unusual); (c) congenital hydrocele; (d) hydrocele of the cord.

Hydrocele

Symptoms –

- Swelling of the scrotum.
- Slight discomfort or pain.

Local examination-

- Unilateral or Bilateral.
- Pure scrotal swelling or get above the swelling
- **Fluctuation test**- the cyst is tense in primary hydrocele, in sec. hydrocele it is lax.
- **Transillumination test** – it is always positive as the hydrocele fluid is clear. The fluid become turbid in sec. hydrocele.
- **Reducibility**- can not be reduced.
- **Palpation of testis**- testis can not be felt separately as the fluid of the hydrocele surrounds the body of testis.

Hydrocele

Infantile hydrocele-

The tunica vaginalis and processus vaginalis is distended to the inguinal ring but there is no connection with the peritoneal cavity.

Congenital hydrocele-

The processus vaginalis is patent and connects with the peritoneal cavity. the communication is too small to allow herniation of intra-abdominal contents. (Bottle neck effect)

Encysted hydrocele of the cord-

When the central portion of the P. vaginalis remains patent, fluid accumulates in it and presents as oval swelling in relation to the spermatic cord.

Treatment

Operation is definitely the treatment of choice.

Jaboulay's method of eversion of sac-

- Incision is made vertically on the effected side of the scrotum lateral to median raphe.
- Incision is through skin, dartos muscle, ext. spermatic fascia, cremasteric fascia, int. spermatic fascia.
- As the tunica vaginalis is reached the vaginal sac is separated from the rest of the scrotal wall by a finger.
- As tunica vaginalis is incised, the fluid will come out of the sac. Tunica vaginalis is held upwards with the help of two artery forceps.
- The incision is extended upwards and downwards to allow the testis to come out through this opening.
- The two margins of tunica vaginalis is sutured behind the testis, so that the secreting surface of the tunica vaginalis will be lying outside. Care must be taken not to strangle the testicular vessels.
- Scrotal wound is sutured and suspensory bandage applied.

Treatment

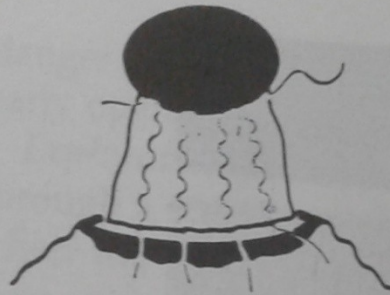
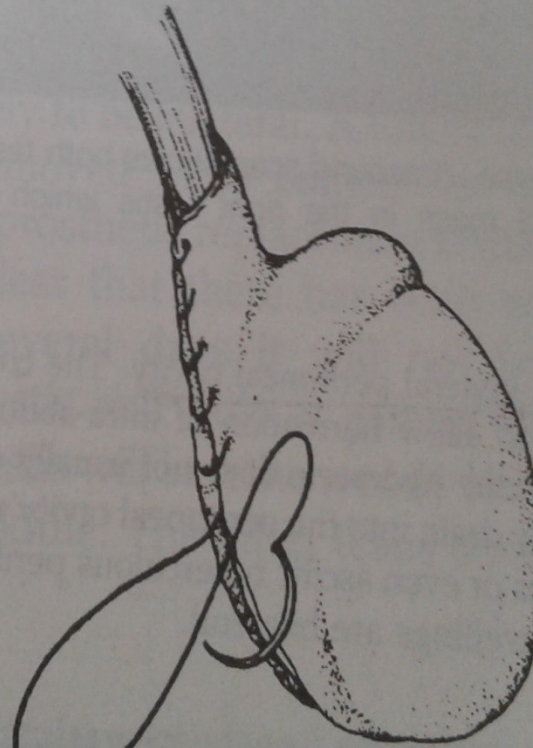


Fig. 61.10 Lord's operation. A series of interrupted absorbable sutures are used to plicate the redundant tunica vaginalis. When these are tied the tunica is bunched into a 'ruff' at its attachment to the testis. (*Peter Lord, FRCS, High Wycombe, England and Karger Verlag, Basel, Switzerland.*)



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Lord's operation-

- A series of interrupted absorbable sutures are used to plicate the redundant tunica vaginalis.
- When these are tied the tunica is bunched in to a Ruff at its attachments to testis.

Excision and eversion of sac

