1st lecture

The penis and scrotum

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Phimosis : The physiological adhesions between the foreskin and the glans penis may persist until 6 years of age or more, giving the false impression that the prepuce will not retract.. This condition should not be confused with true phimosis in boys, with scarring of the prepuce, which will not retract without fissuring. In these cases the aperture in the prepuce may be so tight as to cause urinary obstruction.
Phimosis occurs as a result of balanitis xerotica obliterans (BXO), a curious condition in which the foreskin becomes thickened and will not retract. It is difficult to keep the penis clean and there is both a problem with hygiene and, in later life, an increased susceptibility to carcinoma.
Treatment is by circumcision.

Circumcision: Is most commonly performed for cultural reasons(for social or religious reasons).
Medical indications:Is indicated when there is true phimosis with balanoposthitis or obstruction to urinary flow and recurrent urinary tract infections.
In adults, circumcision is indicated because of an inability to retract for intercourse, for splitting of an abnormally tight frenulum,for balanitis and sometimes before radiotherapy for carcinoma.
Technique in an infant: Applying a clamp or bone forceps across the prepuce distal to the glans with blind division of the foreskin is to be condemned. To see one boy with partial or total amputation of the glans is enough to realise the folly of this technique. It is far better to perform a proper circumcision under direct vision as in an adult. Never use monopolar diathermy when performing circumcision.
Penile injuries:
1-Avulsion of the skin of the penis:Entanglement of clothing in rotating machinery is the usual Cause..
2-Fracture of the penis:Fracture of the penis is an uncommon accident, usually occurring when the erect penis is bent violently downwards during intercourse. The extravasation of blood causes great pain and swelling. In early cases, incision and drainage of the clot with suture of the defect in the tunica of the ruptured corpus cavernosum gives acceptable results.
3-Strangulation of the penis:Strangulation of the penis by rings placed on the penis, usually for sexual reasons, can cause venous engorgement which prevents their removal. It may help to aspirate

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the corpora cavernosa but often the ring must be cut off with a ring cutter or hacksaw.

Paraphimosis: A tight foreskin once retracted may be difficult to return. In this condition, the venous and lymphatic return from the glans and distal foreskin is obstructed and these structures swell, causing even more pressure within the bstructing ring of prepuce. Icebags, gentle manual compression and injection of a solution of hyaluronidase in normal saline may help to reduce the swelling. Such patients can be treated by circumcision if careful manipulation fails. A dorsal slit of the prepuce under local anaesthetic may be enough in an emergency.

Inflammations: this include

1- posthitis Inflammation of the prepuce is known as posthitis.
2- balanitis inflammation of the glans is balanitis.
3- BalanoposthitisThe opposing surfaces of the two structures(prepuce and glans) are often involved, hence the term balanoposthitis.
4- Skin conditions such as lichen planus and psoriasis affect the penis and, indeed, may be localised there.
5- Drug hypersensitivity reactions can affect the skin .

In more severe inflammation, the glans and foreskin are red-raw and pus exudes. Balanoposthitis is associated with penile cancer, diabetes and phimosis. Monilial infections are quite common under the prepuce.

Treatment is by broad-spectrum antibiotics and local hygiene.

Chordee: is a fixed bowing of the penis caused by hypospadias or, more rarely, chronic urethritis. Erection is deformed and sexual intercourse may be impossible. Treatment is usually surgical.

Peyronie's disease: is a relatively common cause of deformity of the erect penis. On examination, hard plaques of fibrosis can usually be palpated in the tunica of one or both corpora cavernosa. The plaques may be calcified .The aetiology is uncertain .

Treatment is difficult. Medical treatments are often ineffective Some cases continue to progress. When the deformity of the penis is causing distress, Surgery may be indicated to correct deformity that interferes with sexual function.

Persistent priapism:The penis remains erect and becomes painful. This is a pathological erection and the glans penis and corpus spongiosum are not involved. Usually seen as a complication of a blood disorder such as sickle cell disease or leukaemia.However, it can sometimes follow therapeutic injection of papaverine or even an abnormally prolonged bout of otherwise normal sexual activity. A tiny proportion is caused by malignant disease in the corpora

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cavernosa or the pelvis. Priapism is rarely seen as a consequence of spinal cord disease.
Treatment / An underlying cause should be excluded. If aspiration of the sludged blood in the corpora cavernosa fails to cause detumescence, and repeated injection of metaraminol or 1:100 000 adrenaline (epinephrine) solution is ineffective, it may be necessary to decompress the penis by an anastomosis between the corpus spongiosum and one of the corpora cavernosa.

Carcinoma of the penis

Aetiology / Circumcision soon after birth confers immunity against carcinoma of the penis. Later circumcision does not seem to have the same effect. Chronic balanoposthitis is known to be a contributory factor, and there are definite precarcinomatous states:
• leucoplakia of the glans.
• longstanding genital warts, which may rarely be the site of malignant change.
• Paget's disease of the penis: is 'a persistent rawness of the glans like a longstanding balanitis followed by cancer of the penis' .
Treatment is by circumcision, observation and excision if the lesion does not resolve.
Pathology:Carcinoma of the penis may be flat and infiltrating or papillary.The former often starts as leucoplakia and the latter results from an existing papilloma. Local growth continues for months or years. The earliest lymphatic spread is to the inguinal and then to the iliac nodes. Distant metastatic deposits are infrequent.
Clinical features:About 40% of patients are under 40 years of age. Mild discomfort and light discharge are often neglected and the disease progresses slowly. By the time the patient presents, the growth is often large and secondary infection causes a foul bloody discharge.There is little or no pain. In total, 60% present with inguinal lymph node enlargement but in half of these this is caused by sepsis. A biopsy should be performed to make the diagnosis. Later, the inguinal nodes erode the skin of the groin and the death of the patient may result from erosion of the femoral or external iliac artery.
Treatment: Radiotherapy is effective (60–70% survival rate at 5 years) for small cancers. Circumcision precedes treatment. Surgery is for large anaplastic growths, if there is infiltration of the shaft and when radiotherapy fails. Partial amputation is used . When an advanced, total amputation is necessary.

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Secondary cancer of the penis: as a result of spread from a primary tumour of the bladder, rectum or prostate is uncommon.

SEXUALLY TRANSMITTED GENITAL INFECTIONS

Genital herpes: is caused by sexual transmission of the herpesvirus hominis (type 2, occasionally type 1). Recurrent attacks occur in 50% or more of cases. Pain along the distribution of the sensory nerve, usually genitofemoral, precedes the eruption by 2 days and may be particularly severe around the anus. A group of tiny vesicles rapidly erodes to form shallow yellow- or red-based ulcers. In female patients, the ulcers often spread on to the thighs during the attack. Involvement of the urethra may cause retention of urine, which may persist for up to 14 days if there is radiculitis of the S2 and S3 nerve roots. Aciclovir has been shown to be effective in treating genital herpes but it does not prevent recurrences.

Lymphogranuloma venereum: is a sexually transmitted tropical disease caused by Chlamydia trachomatis. The primary lesion is a fleeting, painless, genital papule or ulcer often unnoticed by the patient.The inguinal glands become enlarged and painful in both sexes between 2 weeks and 4 months after infection. The masses of nodes mat together above and below the inguinal ligament to give the 'sign of the groove'. The overlying skin reddens and there may be fluctuation. In women, there may be a proctitis, which can go on to produce a rectal stricture if untreated. Lymphatic obstruction leads to lymphoedema in the perineum and occasionally the lower limbs. Urethritis and urethral stricture occur in men.Confirmation is by isolating Chlamydia A from the lesion and by immunological tests to detect antibodies against the organism.

Treatment : a combination of antibiotics, which may include sulphonamide, oxytetracycline and erythromycin.

Condylomata acuminata (synonym: genital warts):Genital warts are caused by infection with human papillomavirus and are sexually transmitted. The lesions most commonly occur under the prepuce in the coronal sulcus but may be found elsewhere, including inside the urinary meatus . In women, genital warts are most commonly found on the vulva but they may line the vagina and occur on the cervix. Perianal warts are common.Other associated sexually transmitted diseases should be excluded: in women mainly candidiasis and Trichomonas infection and in men syphilis or gonorrhoea. Genital warts may complicate human immunodeficiency virus (HIV) infection.

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