

THE SCROTUM

Idiopathic scrotal oedema

This is described under Torsion of the testis .

Idiopathic scrotal gangrene

Idiopathic scrotal gangrene (synonym: Fournier's gangrene) is an uncommon and nasty condition .It is a vascular disaster of infective origin that is characterised by:

- sudden scrotal inflammation;
- rapid onset of gangrene leading to exposure of the scrotal contents.
- the absence of any obvious cause in over half the cases.

The condition can follow minor injuries or procedures in the perineal area, such as a bruise, scratch, urethral dilatation, injection of haemorrhoids or opening of a periurethral abscess.

Haemolytic streptococci (sometimes microaerophilic) are associated with other organisms (*Staphylococcus*, *E. coli*, *Clostridium welchii*) in a fulminating inflammation of the subcutaneous tissues, which results in an obliterative arteritis of the arterioles to the scrotal skin .

Clinical features: There is sudden pain in the scrotum, prostration, pallor and pyrexia. Cellulitis spreads until the entire scrotal coverings slough, leaving the testes exposed but healthy.

Treatment. Expert microbiological advice should be obtained. The organisms are usually sensitive to gentamicin and a cephalosporin, which are given until the bacteriological report is available. Wide excision of the necrotic scrotal skin provides the best possible drainage and stops the spread of the gangrene. Many patients die despite active treatment .

Filarial elephantiasis of the scrotum

Filarial elephantiasis of the scrotum is caused by obstruction of the pelvic lymphatics by *W. bancrofti* with superadded infection and lymphangitis. In longstanding cases, the enormously swollen scrotum may bury the penis. There is no medical treatment available for this condition. The principle of surgical treatment is the construction of new lymphatic pathways using plastic surgery. In very advanced cases, excision of the affected skin with implantation of the testes into the thighs and a skin graft to the penis may be the only curative treatment.

Non-filarial elephantiasis

Non-filarial elephantiasis can result from fibrosis of the lymphatics caused by lymphogranuloma venereum.

Sebaceous cysts

Sebaceous cysts are common in the scrotal skin. They are usually small and multiple .

MALE INFERTILITY

The semen may contain no sperm (azoospermia), few sperm (oligospermia) or predominantly abnormal sperm. The cause is presumably some form of testicular dysfunction, which may follow mumps infection, exposure to radiation or testicular trauma but is more often of unknown aetiology. The normal feedback mechanism to control the production of gonadotrophic hormones is disturbed if there is testicular atrophy and the serum levels of luteinising hormone and follicle-stimulating hormone will be high. In some patients with azoospermia, the testicular biopsy shows a failure of sperm development. Many treatments have been attempted but the results have been disappointing.

Obstruction

Azoospermia may also be caused by obstruction of the pathway of spermatozoa from the testis to the ejaculatory ducts via the epididymis. Testicular biopsy will show active spermatogenesis. If the site of the obstruction can be identified by vasography it may be possible to perform a bypass operation. Unfortunately, even in the best hands, the results of epididymovasostomy are poor. In some couples there appears to be an immunological basis for the infertility, with clumping of sperm exposed to serum or cervical mucus. Intracytoplasmic sperm injection (ICSI) has revolutionized the management of male factor infertility. Spermatozoa harvested from the ejaculate, by aspiration of the epididymis or even from testicular biopsy can be injected *in vitro* into ova obtained from the mother. Embryos are then transferred into the mother's uterus at the four- to six-cell stage .

Vasectomy for sterilisation

Vasectomy for sterilisation is a common and effective contraceptive procedure. It should be undertaken only after the couple has been carefully counselled. Both partners need to know that the

operation is performed to make the man permanently sterile. They should be warned that normal contraceptive precautions should continue until the success of the operation is confirmed by semen analysis performed 12–16 weeks after surgery. They should also be warned of the possibility of spontaneous recanalisation, which may restore fertility unexpectedly. Vasectomy is easily and painlessly performed under local anaesthetic. The vasa are delivered through tiny bilateral scrotal incisions or through a single midline scrotal incision. For medico-legal reasons it is wise to remove a segment of each vas to prove that it has been successfully divided. Burying the cut ends or turning them back on themselves probably helps to prevent them rejoining.

Reversal of vasectomy may not restore fertility even if technically successful because of the presence of autoantibodies developed against the sequestered sperm. A success rate of 60–80% may be possible if the operation is performed within 3–4 years of vasectomy.