Scrotal pain is any discomfort of the scrotum or its contents, the testicles and their supporting structures. It is common in men of any age, but it occurs most frequently in young adults and middle-aged men. While it may be frustrating to live with scrotal discomfort, it is rarely an indication of a dangerous health problem.

The testicles are the factory for sperm and male hormone (testosterone) production. Sperm produced in each testicle is stored and matured in the epididymis, a crescent-shaped structure attached to the back of the testicle. At orgasm, sperm is ejected from the epididymis and carried through the vas deferens to mix with secretions from the prostate and other glands before being ejaculated.

Careful examination by your physician and investigations, if necessary, can reliably exclude many causes of scrotal pain, including:

- A tumour of the testicle
- Scrotal injury
- Cysts (a localized fluid collection) of the epididymis
- A hydrocele (a fluid collection around the testicle)

Other possible causes of scrotal pain include:

- A tumour of the testicle
- Scrotal injury
- Cysts (a localized fluid collection) of the epididymis
- A hydrocele (a fluid collection around the testicle)
- A hernia (a bulging of abdominal structures through the groin into the scrotum)
- Spermatic cord torsion (twisting of a testicle on its blood vessels interrupting blood flow and causing sudden severe pain)

Inflammation of the testicle (orchitis) or the epididymis (epididymitis) may be the cause of scrotal pain. Occasionally, both structures are involved (epididymo-orchitis). These conditions may be sudden and brief (acute) or lasting many weeks or months (chronic).

In some cases, no inflammation is present, only persistent pain (chronic orchialgia).

**Acute epididymitis and orchitis**

Acute orchitis produces sudden pain and swelling of the testicle. This may be associated with fever, abdominal or pelvic pain, nausea, and occasionally, vomiting. The inflammation may be due to an infection but often no cause can be determined. Infection-causing bacteria may be acquired sexually (in sexually active adults) or from urinary infection (especially in young boys and elderly men). Viruses and other infectious organisms can also cause acute orchitis.

Sudden inflammation of the epididymis is called acute epididymitis. The pain and swelling of the scrotal contents in acute epididymitis may be indistinguishable from that of acute orchitis. It usually results from spread of infection from the bladder, urethra, or prostate. A sexually transmitted infection is often the cause of acute epididymitis in sexually active men. Enlargement of the prostate in older men can lead to difficulties with bladder emptying and urinary or prostate infection, with subsequent acute epididymitis. In infants and boys, acute epididymitis usually is related to a bladder or kidney infection or an underlying abnormality of the urinary system.

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Scrotal pain

Investigations

The diagnosis of acute orchitis or epididymitis can often be made based on a man’s symptoms of scrotal pain and his physical examination. Urine tests or urethral swabs for microscopic examination and culture may be helpful. Ultrasound examination of the scrotum can be useful to demonstrate the detail of scrotal structures.

Treatment

When acute orchitis or epididymitis is thought to result from bacterial infection, a course of antibiotics should produce symptom relief and cure of infection. Swelling may often take several weeks to resolve. Anti-inflammatory medications, such as ibuprofen (e.g. Advil™), and painkillers, such as acetaminophen (e.g. Tylenol™), may help decrease pain and fever. Bed rest, scrotal support and drinking plenty of fluids to keep well hydrated will speed recovery. Most patients can be managed out of hospital and surgery is rarely necessary.

Chronic scrotal pain

Inflammation involving the testicle or epididymis can persist for longer periods of time and become chronic. Chronic orchitis is inflammation and pain in the testicle, often without swelling, persisting for greater than six weeks. Prolonged scrotal pain without inflammation or obvious cause is called chronic orchialgia. It may be impossible to distinguish chronic orchitis from chronic orchialgia. Chronic epididymitis produces pain in the epididymis, usually with little swelling, persisting for over six weeks.

The cause of chronic orchitis or epididymitis is unclear but they may be due to injury or inadequately treated or recurrent infections of the testicle or epididymis. Men with these frustrating problems can have significant, prolonged pain (which may come and go) that can seriously affect day-to-day functioning. This may occur uncommonly following a vasectomy. Long-term complications are possible and include shrinkage of the affected testicle, infertility and chronic pain. There is no known association between chronic orchitis or epididymitis and cancer. The investigation of these problems is similar to that of the acute form.

Treatment

Treatment for chronic scrotal pain can be difficult and frustrating. Your physician may suggest the use of anti-inflammatory medication, such as ibuprofen, painkillers, such as acetaminophen, scrotal support, the application of heat, or nerve blocks. A four to six week trial of antibiotics may also be recommended. In the absence of proven infection, prolonged or repeated courses of antibiotics are seldom helpful.

Scrotal pain is often a frustrating problem which may have significant impact on a man’s quality of life. Fortunately, this problem will often resolve completely over time and is rarely associated with dangerous health problems.