

# Epididymal Cysts

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## Description

Smooth, extratesticular, spherical cysts in the head of the epididymis are not uncommon in adult men. They are benign and do not usually require treatment. It is important to appreciate when they might be significant and when further investigation or treatment is recommended.

## Epidemiology

Epididymal cysts usually develop in adults around the age of 40. Epididymal cysts are rare in children and when they occur, usually present around **puberty**.<sup>[1]</sup> Cysts are found in as many as 30% of asymptomatic patients having **scrotal ultrasound** for other reasons, but most of these are **spermatoceles**.<sup>[2]</sup> The prevalence in the general population is difficult to estimate.

## Presentation

Patients usually present having noticed a lump. This often causes a great deal of anxiety and clinical examination can enable reassurance.

- Often epididymal cysts are multiple and may be bilateral.
- Small cysts may remain undetected and asymptomatic. Small cysts are tolerated by patients. However, once epididymal cysts get large (with size equivalent to the size of a testicle) they are, unsurprisingly, more likely to present for removal.<sup>[3]</sup>
- As they are cystic and fluid filled they are well defined, fluctuant and will transilluminate.
- As they arise in the epididymis, the testis is palpable quite separately from the cyst (unlike a hydrocele where the testis is palpable within the fluid filled swelling).
- Extratesticular, fluctuant, cystic swellings which transilluminate and are readily palpable separate from the body of the testis are epididymal cysts and do not usually need further investigation.
- These can readily be distinguished from testicular tumours which arise from the testis.

## Differential diagnosis

- Spermatocele. There is no way clinically to differentiate between a cyst of the epididymis and a spermatocele. They can be differentiated as sperm are present in the milky fluid aspirate of a spermatocele. Such a procedure is not recommended as differential diagnosis does not change management.
- Inflammatory thickening, either acute or chronic of the epididymis. Such swellings will not transilluminate.
- Hydroceles. These are collections of fluid surrounding the entire testicle.
- Varicoceles. These are dilated veins and have been described as feeling like 'a bag of worms'. They increase with increase in abdominal pressure (Valsalva manoeuvre).
- Other **scrotal masses**, particularly the extratesticular scrotal masses. These are predominantly benign. Lipomas are the most common extratesticular tumours.<sup>[4]</sup>

## Investigations

Scrotal ultrasound will assist diagnosis if there is uncertainty.<sup>[5][6]</sup> Aspiration of fluid is rarely useful or necessary from either a diagnostic or treatment perspective.

## Associated diseases

- **Cystic fibrosis.** Congenital absence of the vas deferens is the most common genital tract anomaly in cystic fibrosis (99% of patients). Epididymal cysts are common.<sup>[7]</sup>
- **Von Hippel-Lindau disease.**<sup>[8]</sup> Along with other more significant manifestations of this syndrome, epididymal cysts are associated with the condition.<sup>[9]</sup> It is a rare disease and important to recognise early.<sup>[10]</sup>
- Maternal exposure to **diethylstilbestrol.**
- **Polycystic kidney disease** (autosomal dominant).<sup>[11]</sup>

## Management

- Treatment is not usually necessary and explanation and advice is all that is usually required. Patients should be advised to seek medical advice if epididymal cysts become painful or suddenly start increasing in size.<sup>[3]</sup>
- They can be surgically excised. This is best for large or symptomatic epididymal cysts. It is more costly than sclerotherapy and there is a higher rate of postoperative infection and scrotal haematoma. The outcome is better than for other epididymal pathology (such as chronic epididymitis).<sup>[12]</sup>
- Treatment by sclerotherapy.<sup>[13]</sup> Different volumes and types of sclerosant solution can be used although no comparative studies have been done to recommend one sclerosant over another and use of sclerosants other than for varicose veins is usually unlicensed. Sclerosants used include **tetracycline**, phenol, sodium tetradecyl sulphate,<sup>[14][15]</sup> polidocanol and ethanolamine oleate. The amount used depends on the size of the cyst.
- In children, most epididymal cysts involute with time and a conservative approach is recommended.<sup>[16]</sup>

## Complications

Torsion of the cyst can occur but is extremely rare with only a handful of cases reported.<sup>[17]</sup> They do not become infected.<sup>[18]</sup>

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