CASE REPORT

An infected urachal cyst

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SUMMARY

Urachal cysts present very uncommonly in adults. We describe a 25-year-old man who attended with a discharging umbilical swelling and pain. Ultrasonography and CT scan demonstrated an infected urachal cyst which, following cystoscopy, was excised without complication.

BACKGROUND

The urachus is the embryological remnant of the allantois, which connects the apex of the bladder to the umbilicus, and usually fully obliterates to become the median umbilical ligament. Urachal defects are uncommon and cysts are usually asymptomatic.

CASE PRESENTATION

A 25-year-old man with no significant history presented to the accident and emergency department with umbilical pain and discharge from an umbilical swelling (figure 1). Following admission, the patient swiftly developed pyrexia and his wound dressing was noted to be oozing with pus. Swabs were sent for microscopy, culture and sensitivity and Gram stain. Blood test results were unremarkable, apart from modestly elevated C reactive protein, and mild normochromic normocytic anaemia.

Ultrasonography (US) and CT scan demonstrated a midline cystic lesion at the level of the umbilicus,

Figure 1 Infected urachal cyst.

Figure 2 Axial computed tomography scan, identifying the urachal cyst protruding through the umbilicus.

deep in the rectus muscles, contained in a tract between the umbilicus and the bladder (figure 2).

The patient underwent an urgent combined procedure under general anaesthesia. Initial cystoscopy demonstrated no direct connection from the bladder; following this, the cyst and the urachal tract were completely excised, leaving the bladder intact.

Histology of the cyst showed a polypoid lesion featuring extensive ulceration with focal squamous epithelialisation. The underlying stroma showed oedema, florid active chronic inflammation (including microabscess formation), necrosis and granulation tissue, which was consistent with the diagnosis of an infected cyst. There was no obvious transitional epithelium, connective tissue or musculature evident and no malignant change was seen.

Microbiology of the discharge grew heavy mixed anaerobes.

The patient recovered well and was discharged home requiring no analgesia on postoperative day 7 after completing a course of intravenous flucloxacillin and benzylpenicillin.

DISCUSSION

A urachal cyst occurs in 1 in 5000 live-births, but is only clinically relevant in 1 in 150 000 of the population¹ often as an incidental finding.

An infected cyst may present mimicking a wide range of intra-abdominal and pelvic disorders, and accurate diagnosis is often delayed. Children may present with umbilical discharge; adults often have haematuria.

CT and US are ideally suited for demonstrating urachal remnant diseases; however, both infected urachal cysts and urachal carcinomas commonly display increased echogenicity at US and thick-

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walled cystic or mixed attenuation at CT, making it difficult to differentiate between them.²

Complications of an infected urachal cyst include intraperitoneal rupture leading to necrotising fasciitis.³

Treatment may be a two-stage procedure, involving primary incision and drainage, later followed by urachal remnant and bladder cuff excision or a single-stage operation, which can be performed either open or laparoscopically.^{1 4}

Total removal of the cyst wall is essential because there is a 30% reinfection rate and carcinoma can develop in an unresected or incompletely resected urachal remnant.²

Learning points

- ▶ Urachal cysts are rare anomalies that occur in the urachus.
- ▶ Clinical presentation is non-specific.
- ▶ When diagnosed, surgical excision is advised because of the risk of malignant transformation.

Competing interests None.

Patient consent Obtained.

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