



Suprapubic cartilaginous cyst – A case report

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CASE REPORT

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Abstract

Suprapubic cartilaginous cyst (SPCC) is a rare condition known to occur in postmenopausal multiparous women. It is due to the degeneration of the pubic symphysis. Due to its slow progression and rarity in occurrence, it is often misdiagnosed. Presentation includes a painless mass in the suprapubic region, urinary retention, recurrent urinary tract infections, dysuria and dyspareunia. Knowledge of this condition is of great importance, as this is a benign condition that is managed conservatively, thereby avoiding unnecessary procedures. Surgical resection has not shown to have any additional benefit. Once suspected, MRI is ideal for diagnosis. This case report discusses a SPCC with punctuate calcifications and a locule of gas within it. This is the first documented case of a SPCC with punctuate calcifications.

Key Words

Suprapubic cartilaginous cyst, suprapubic cyst, painless valvular mass, symphysis pubis degeneration

Implications for Practice

- This is a condition that needs to be considered in postmenopausal patients presenting with a valvular mass, recurrent urinary tract infections or paraesthesia in the medial thigh region.

- It is a rare condition, often missed or confused with other conditions. The lack of knowledge of this condition often leads to unnecessary intervention.
 - SPCC can be managed conservatively. Surgical resection has not proved to have any additional benefit to the patient.
 - MRI is diagnostic and no further intervention is required.
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Background

SPCC is a rare condition with only nine cases having been reported worldwide. This could be attributed to its rarity or misdiagnosis or both. These occur mainly in postmenopausal multiparous women; although it has also been documented in a young female patient, having being confused for endometriosis.¹ SPCC has a painless presentation with slow growth. Presentation includes a painless mass in the suprapubic region, urinary retention, recurrent urinary tract infections, dysuria and dyspareunia.² Rarely, incomplete bladder emptying³ or a painless vulvar mass with paresthesia to medial aspect of the thigh⁴ may also be presented. This case report describes a SPCC in a 77-year-old female patient, containing a small locule of gas and calcifications mostly associated with degenerative changes at the pubic symphysis. Martel et al⁵ also published a case of a patient with a SPCC containing a locule of gas but this is the first published case containing punctate calcifications as well. Knowledge of this condition is of great importance, as this is a benign condition that can be managed conservatively, thereby avoiding unnecessary procedures.²

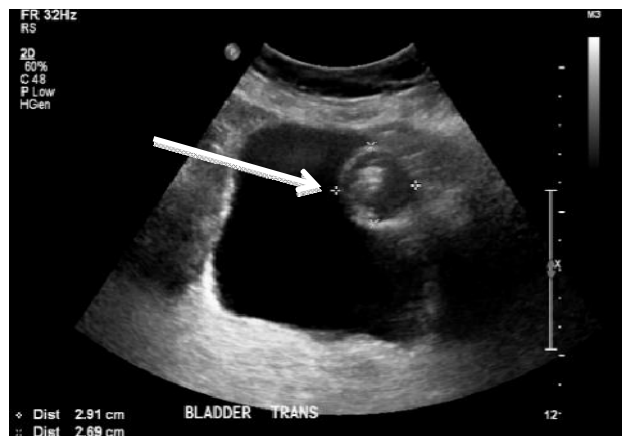
Case details

A 77-year-old multiparous post-menopausal patient was referred to our surgical outpatient clinic with a six-month history of pressure symptoms in her lower abdomen. The patient described longstanding swelling in both legs, denied any changes in bowel habits and described an increase in frequency of micturition. Past history included rheumatoid arthritis, osteoarthritis, recurrent urinary tract infections and a mini-stroke managed with anticoagulants. The patient

reported a mild paraesthesia in her medial thigh region. This was initially attributed to her mini-stroke.

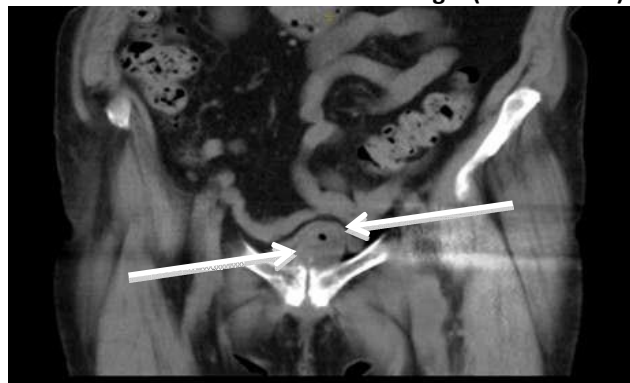
On examination, she had minimal tenderness to palpations over her pubic symphysis with no palpable mass. An ultrasound demonstrated a well-circumscribed rounded lesion of an undetermined nature apparently arising from the anterolateral left bladder wall (Figure 1).

Figure 1: US image of the well-circumscribed, rounded lesion apparently arising from the anterolateral left bladder wall in the transverse view



A CT scan showed a rounded mass centered on the symphysis pubis with some irregularity, punctate calcification and a locule of gas within the mass (Figures 2,3).

Figure 2: CT scan image demonstrating a small locule of gas (upper arrow) within the SPCC and inferiorly punctate calcifications at the anterior basal margin (lower arrow)



A bone scan to rule out any underlying bony abnormalities as well as an MRI scan (Figure 4) for further clarification were also performed.

The differential diagnosis included bladder diverticulum, bony lesion of the pubis, remnant of an urachal tract (with or without an infection), an abscess due to osteoarticular tuberculosis, pseudosynovial cyst arising from a rheumatoid nodule and a SPCC.

Figure 3: CT scan image demonstrating the SPCC projecting superiorly to the pubic symphysis

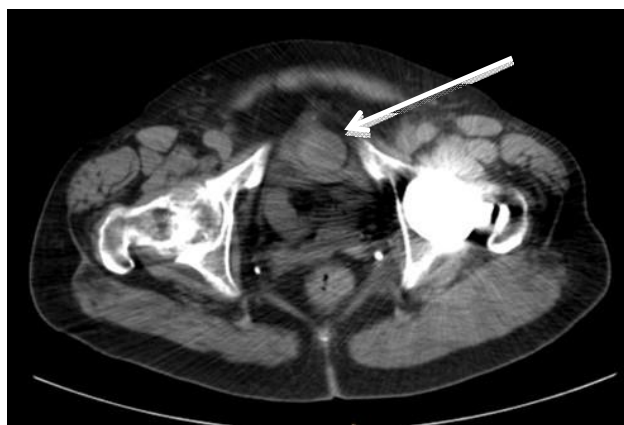


Figure 4: MRI image demonstrating the SPCC at the pubic symphysis



The MRI scan was most helpful in obtaining the diagnosis of a SPCC. It showed a clear, well-circumscribed lesion, fairly uniform in density arising from the pubic symphysis containing fluid but separate to the bladder wall. This patient was reviewed on a regular basis in our surgical outpatient clinic. Her recurrent urinary tract infections were treated and she was reassured of the benign nature of SPCC. She was managed conservatively only.

Discussion

SPCC is a very rare condition with only nine cases reported in literature. Based on the anatomy and pathophysiology of the pubic symphysis, the population most at risk seems to be elderly female patients with a history of multiparity and in menopause.^{3-5,7-9} Martel et al have documented a male patient with a SPCC due to pubic symphysis degeneration. Of the nine cases discussed in literature, one case had a history of vulvar trauma post fall onto a piece of furniture and another had a history of symphysis pubis separation.⁶ In another case, investigators reported a firm slow growing 2cm mass associated with the left labium majorum with



groin pain and paraesthesia in the medial thigh region. This was due to the more lateral positioning of the cyst.⁴ The differential diagnosis discussed in the reported cases includes an abscess due to osteoarticular tuberculosis,¹⁰ chondrosarcoma and a pseudosynovial cyst arising from a rheumatoid nodule.¹¹ Chondrosarcomas need tissue biopsy for its diagnosis, this maybe an unnecessary intervention for an elderly patient with multiple comorbidities, as diagnosis of a SPCC can be made with confidence on MRI or CT. Of the nine cases documented, six cases were treated with surgical excision and two cases were monitored, with only one undergoing biopsy.

The patient discussed here had a locule of gas along with calcifications within the SPCC. This gas particle is attributed to the so-called 'vacuum phenomenon'. The distraction of disc spaces creates a negative pressure that brings out the nitrogen from the surrounding fluid. A similar process can occur in the pubic symphysis causing an accumulation of gas within the cyst.⁵ A cartilaginous cyst in some patients is hypothesized to have arisen from cystic, ganglion like mucinous degeneration of the arcuate ligament tissues associated with cartilaginous metaplasia.⁴

A patient presenting with a smooth, rounded, painless, cyst, fixed to the symphysis pubis in the anatomical midline, in a post menopausal multiparous women, should arouse suspicion of a SPCC.⁶ MRI and CT are the best modalities for the diagnosis of this condition. Management should be guided by the patient's symptoms and preferences. Cysts located inferior to the symphysis pubis have been shown to have a good outcome regardless of surgery.² The rarity of these lesions may precipitate unnecessary surgical intervention.

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PATIENT CONSENT

The authors declare that:

1. They have obtained written, informed consent for the publication of the details relating to the patient in this report.
2. All possible steps have been taken to safeguard the identity of the patient.
3. This submission is compliant with the requirements of local research ethics committees.