# Corpus spongiosum cyst

Sreya Das,[1] Jennifer L Nguyen,[2] Kevin Basralian[3]

[1]School of Medicine, Hackensack Meridian Health, Nutley, New Jersey, USA
[2]Department of Urology, Hackensack Meridian Hackensack University Medical Center, Hackensack, New Jersey, USA
[3]Urology, Hackensack University Medical Center, Hackensack, New Jersey, USA

**Correspondence to**
Ms Sreya Das;
sreya.das@hmhn.org

Accepted 2 November 2023

## DESCRIPTION

Corpus spongiosum cysts are rare. While the prevalence is 1%–6% among females, the prevalence is much lower among males and only a few cases are described in the literature.[1] In previously reported cases of paraurethral cysts, the anatomical pathology was associated with urinary incontinence which prompted surgical removal. By contrast, the case presented here was discovered incidentally. A male in his late 40s presented with an enlarging corpus spongiosum cyst first noted 6 years previously. He has a medical history of Hodgkin's lymphoma which is now in remission. Initially, the patient had imaging performed for an unrelated concern and was found to have a 'small cyst' at the base of the bladder. As the cyst was asymptomatic, the patient was advised that no intervention was required at the time. However, over the past year, he started to notice some mild perineal discomfort which radiates to the inguinal region. He denied any urinary incontinence, retention, haematuria, urethral discomfort, or swelling or discharge. He also denied any changes in his sexual function and had normal ejaculation function. There was no family history of prostate cancer. He is a non-smoker and drinks alcohol rarely. No abnormality of the perineum or genitalia was noted on physical examination. An MRI pelvis was performed as a part of his regular follow-up for Hodgkin's lymphoma. A 3×2 ×1.7 cm corpora spongiosum cyst was noted, as seen in figure 1. This was enlarged from 2 years prior when the cyst was 2.5×1.7 cm on CT abdomen/pelvis.

The presumed diagnosis of corpus spongiosum cyst is based on the anatomical location of the pathology. The findings of low signal on T1-weighted MRI and homogeneity postcontrast further support the diagnosis of cyst and likely benign nature of the pathology. Another differential diagnosis to consider is penile carcinoma, considering the location of the pathology. However, as per European Association of Urology guidelines, penile carcinoma should be suspected based on physical examination, which was normal in this patient.[2] There were no raised or ulcerous lesions. There are no current guidelines on the management of a corpus spongiosum or other paraurethral cysts. Based on the lack of symptoms, aside from some mild discomfort, it was determined that intervention was not needed. The cyst will continue to be monitored for changes. Previous similar cases offer some insight on potential aetiologies. In one such case, a 1.5×1.5×2 cm paraurethral cyst within the corpus spongiosum was visualised by MRI and aspirated.[3]

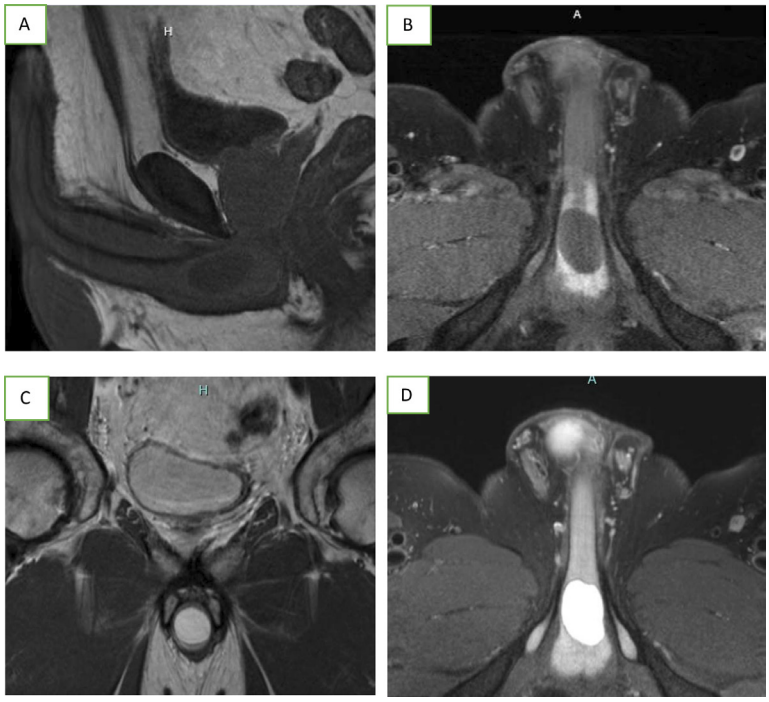


**Figure 1** MRI Images of the corpus spongiosum cyst. (A) Sagittal T1-weighted MRI with the cyst visible inferior to the urethra. (B) Axial T1-weighted MRI presenting the axial diameter of the cyst. (C) Coronal proton density MRI demonstrating the coronal diameter of the cyst. (D) Axial T1-weighted MRI postgadolinium contrast image demonstrating the continued homogeneity of the cyst post contrast administration.



**To cite:** Das S, Nguyen JL, Basralian K. *BMJ Case Rep* 2023;**16**:e257128. doi:10.1136/bcr-2023-257128

This cyst was notably associated with urinary incontinence. After fine-needle aspiration, cytological examination showed no sign of malignancy or infection, and the cyst was then excised due to the impediment on the patient's quality of life. Histological examination confirmed a mucoid cyst lined by a double-layered epithelium containing cellular detritus and few polymorphonuclear cells. The pathophysiological theory was that the formation of a diverticulum from a paraurethral gland later lost its connection with the urethra by obliteration. A few rare cases of congenital urethral diverticula have been cited in literature as causes of incontinence.[4 5] In another case of paraurethral cyst, MRI showed an area of homogeneous oval cystic swelling with a smooth wall and high signal intensity, and a diagnosis of Cowper's syringocele was made.[6] The syringocele, which was theorised to be enlarged due to infection or trauma of the gland, was removed due to the patient's urinary incontinence.

## Learning points

- Only a few cases of male paraurethral cysts are documented in the literature and the guidelines for intervention are not well defined.
- The decision for intervention is based on symptoms and examination findings. Cytology may be helpful.

**Contributors** The following authors were responsible for drafting of the text, sourcing and editing of clinical images, investigation results, drawing original diagrams and algorithms, and critical revision for important intellectual content: KB, JLN, SD. The following authors gave final approval of the manuscript: KB, JLN, SD.

**Funding** The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

**Competing interests** None declared.

**Patient consent for publication** Consent obtained directly from patient(s).

**Provenance and peer review** Not commissioned; externally peer reviewed.

Case reports provide a valuable learning resource for the scientific community and can indicate areas of interest for future research. They should not be used in isolation to guide treatment choices or public health policy.

## REFERENCES

1 Noorwali F, Alboloshi E. Paraurethral Cyst with multiple stones: a case report. *Urol Case Rep* 2021;39:101774.
2 Brouwser OR, TagaraST, AlbersenM, *et al*. *Guidelines on Penile Cancer*. European Association of Urology, 2023.
3 Hakenberg OW, Froehner M, Wirth MP. Symptomatic Paraurethral corpus Spongiosum Cyst in a male patient. *Urology* 2000;55:590.
4 Preminger GM, Steinhardt GF. Male urethral diverticulum: the double density sign. *Urology* 1985;26:417–9.
5 Sen SE, Iseri C, Eryigit M. Congenital urethral diverticulum in the male. *Urology* 1989;34:129–30.
6 Al-Zahrani AA. A rare case of Cowper's Syringocele in an adult male: clinical presentation and management. *JTUMED* 2016;11:168–71.