

Urachal cyst incidentally discovered at emergency caesarean section

This case report describes an unusual case in which an extremely rare, asymptomatic urachal cyst was incidentally discovered during an emergency caesarean section in a District General Hospital within Bart's NHS Trust, within East London.

Dr Chen Liu*¹, Dr Lydia Wilson*¹, Ms Saira Sundar²
*co-authors
1. Barts Health NHS Trust, London, UK
2. Bart's Health NHS Trust, Department of Obstetrics and Gynaecology, London, UK



Objective

A urachus is an embryological remnant that tracks in the midline between the bladder dome and the umbilicus. In rare cases, the failure of involution of this embryological structure can lead to a variety of anomalies; from bladder diverticulum to entirely patent urachus which can present with urine leaking from the umbilicus. While often asymptomatic, they can present as masses or with signs of infection, particularly in childhood.¹ They are rare in adults, particularly in females, and even more rare as incidental findings in pregnant women during caesarean section.²

Case

Background: 28yo para 1 female, EMCS, gestational diabetes, VBAC
Scans during pregnancy reassuring, a structure measuring 35x30x57mm with pedunculation on the anterior wall of the uterus was noted to most likely resemble a pedunculated/subserous fibroid.

Presentation:
Admitted to Newham Hospital. After failure to progress and suspicious CTG findings, the decision was made to expedite delivery with a grade 2 EMCS. Dense omental adhesions between the anterior abdominal wall and uterus were dissected apart carefully. A cystic structure, measuring around 40x50x50mm was incidentally discovered above the bladder. A second obstetrician was consulted followed by an urgent urology consult to further investigate the cyst. Gentle dissection by the urologist lead to rupture and liberation of a thick, yellow, purulent material which was sent for laboratory investigations. Flexible cystoscopy and cyst exploration both confirmed the bladder to be intact, with no communication to the cyst. The cyst wall was closed, and haemostasias was achieved. A live and healthy baby girl was delivered.

Postnatal:
Patient informed of events and incidental findings. Urology team advised unlikely need of any further follow up. Observations stable, able to pass urine spontaneously and discharged the next day. Cyst histology revealed no significant findings on testing of the cystic contents.

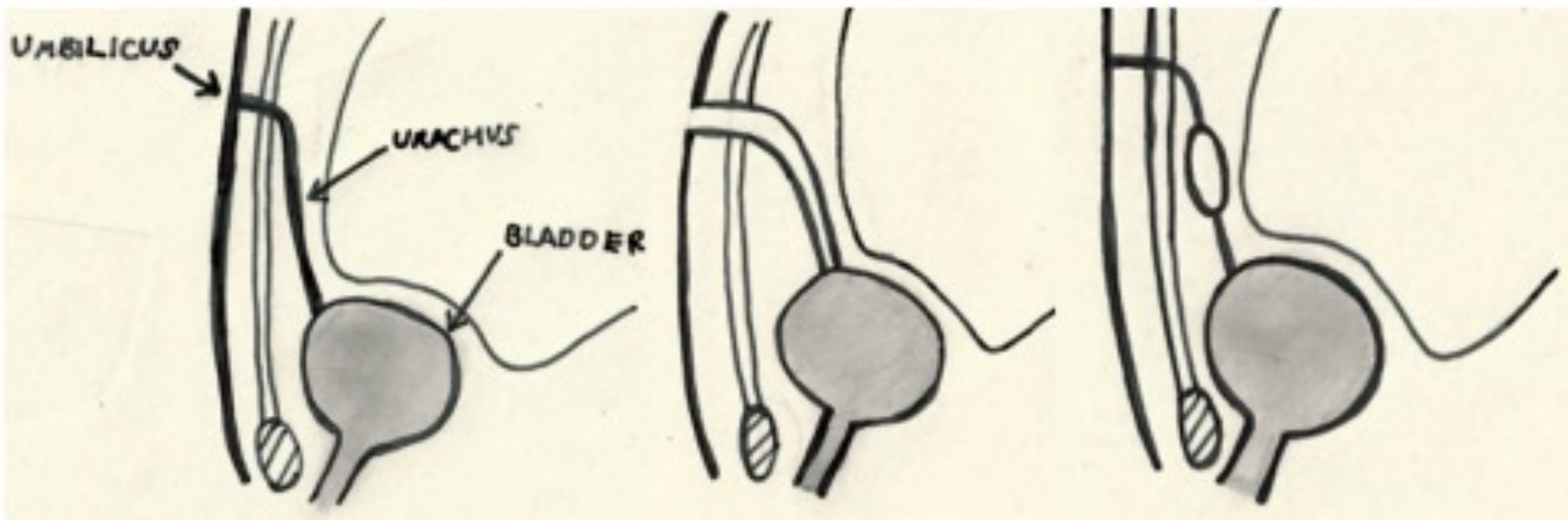


Figure 1: A) Normal Anatomy. B) Patent Urachus. C) Urachal Cyst

Discussion

- This report describes a case of a benign urachal cyst being found and excised as a result of prompt multidisciplinary team-based investigation and definitive surgical management. (*Fig. 1*)
- To our knowledge, this is the only recently reported case of an incidental urachal cyst diagnosed intra-operatively during emergency caesarean section.
- Although the cyst was benign and asymptomatic, excellent multi-speciality team management reduced the patient's risk of serious complications from the cyst to negligible levels.
- Histology in this case was clear, however malignant transformation into urachal adenocarcinomas is a well-recognised complication of urachal cysts.³ Therefore, thorough clinical and pathological assessment is essential.
- Urachal cysts, although rare, are an important differential when considering midline masses identified during pregnancy, as late detection increases risk of serious complications, such as infection, or transformation into urachal adenocarcinomas.³
- Furthermore, urachal cysts can act as differential diagnoses to emergency conditions e.g. ovarian torsion, thus potentially altering the patient's care journey dramatically.³

Conclusion

Detailed history and scanning antenatally is warranted to avoid incidental findings and morbidity and mortality associated with serious urachal cyst complications. Late, incidental, intraoperative diagnosis is sub-ideal clinical practice. By improving scanning techniques, incorporating 3-D scanning for better visualisation, creating educational opportunities for multidisciplinary teams surrounding these rare conditions and performing detailed histology, we can reduce late diagnosis and therefore improve patient care in these areas.

References

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