

URACHAL CYST IN ADULT PRESENTING AS ABDOMINAL PAIN

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ABSTRACT

INTRODUCTION

Urachal cyst is very rarely seen in adults. They are normally obliterated in early infancy. Urachal abnormalities are more common in children.

CASE PRESENTATION

We describe a case of a 35 years South Indian male who presented with intermittent lower abdominal pain. He also had a history of discharge from umbilicus which subsided on treatment with antibiotics. No mass was palpable per abdomen. CT scan abdomen was done which showed a cystic lesion 1.3 x 1 cm about 4 cm inferior to the umbilicus which was suggestive of urachal cyst. Exploratory laparotomy was performed. Urachal cyst excised. The distal urachal ligament was obliterated and fibrous. No communication was found to the bladder. Histopathology confirmed it to be urachal cyst. Postoperative period was uneventful. Patient was relieved of abdominal pain on outpatient follow-up after 3 months

CONCLUSION

Urachal abnormalities are rare in adults. Clinical presentation was as chronic intermittent abdominal pain which was nonspecific. A high index of suspicion required to arrive at the diagnosis. The investigation modalities didn't offer conclusive diagnosis. Excision relieved the abdominal pain.

INTRODUCTION

Urachus or median umbilical ligament is obliterated allantois. It gets obliterated in fetal life. It extends from the bladder dome to the umbilicus. A partial or total defect in the process of obliteration of the allantois results in urachal abnormalities. They are usually detected in early childhood. They can very rarely present in adulthood. The clinical presentation is variable and makes the diagnosis difficult. Therefore we present a case which presented as intermittent abdominal pain and was difficult to diagnose even with modern diagnostic tools.

CASE REPORT

A 35 year old south Indian male presented to the surgical outpatient department with intermittent infraumbilical abdominal pain of 3 months duration. He gave a history of discharge from umbilicus for a few days which subsided on treatment with antibiotics by a general practitioner. The discharge

was scanty, serous with turbidity. It was not having the odour of urine. No history of fever. On examination he was afebrile. Abdomen was soft, no mass palpable. There was tenderness in the hypogastric region. The laboratory investigations were within normal limits. Ultrasonogram of the abdomen was reported as normal.

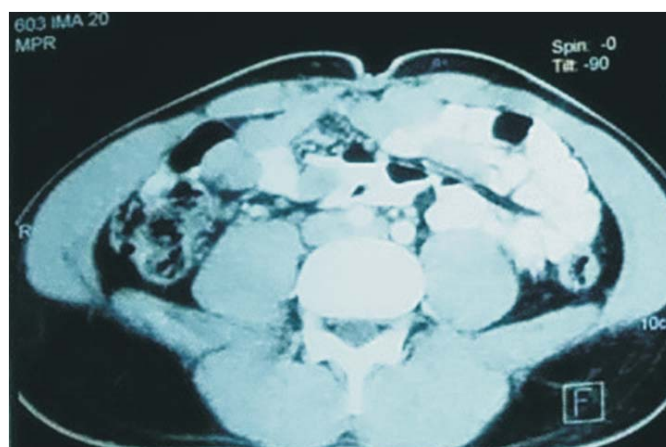


Fig 1 CT section at the level of the umbilicus

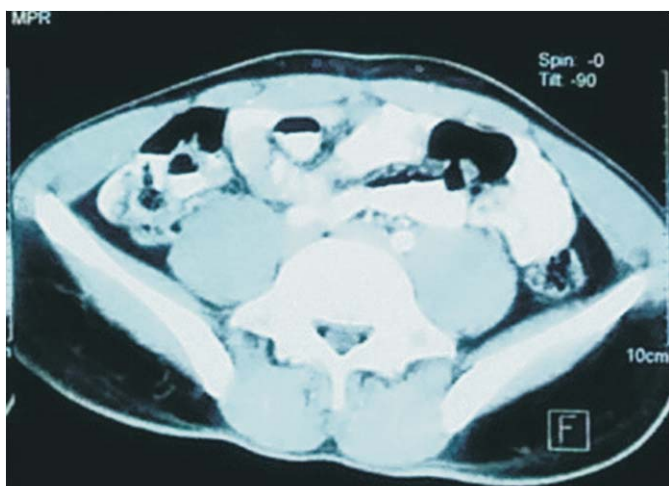


Fig 2 CT section showing the cyst inferior to the umbilicus with surrounding bowel filled with contrast

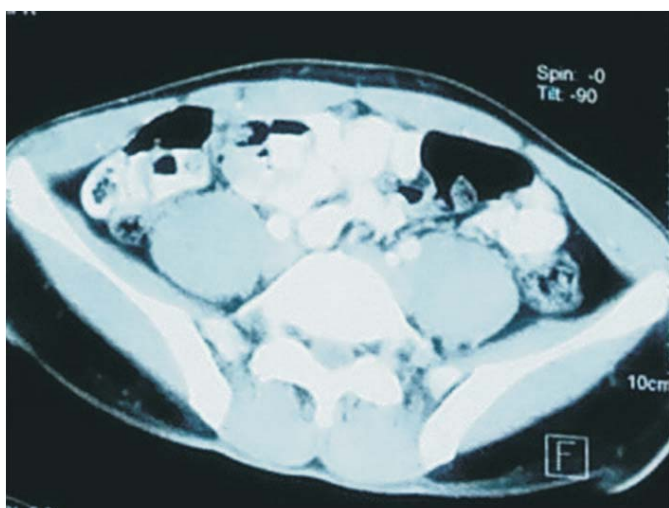


Fig 3 CT Section showing the cyst

left in place. The post-operative course was uneventful. The patient was discharged from hospital. The urinary catheter was removed after 3 weeks. The abdominal pain with which the patient presented to us has subsided. No complications.

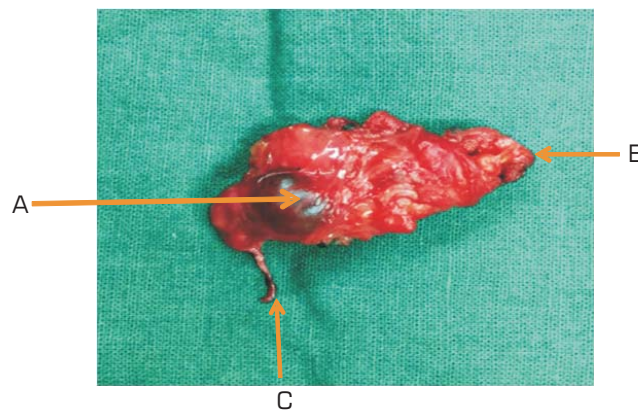


Fig 4 (A) Urachal cyst (B) Bladder end (C) Umbilical end

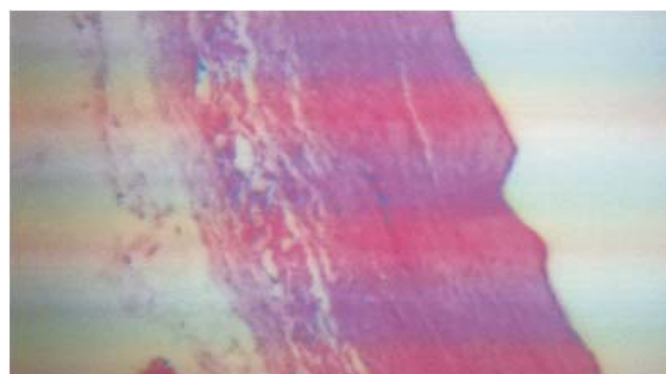


Fig 5a

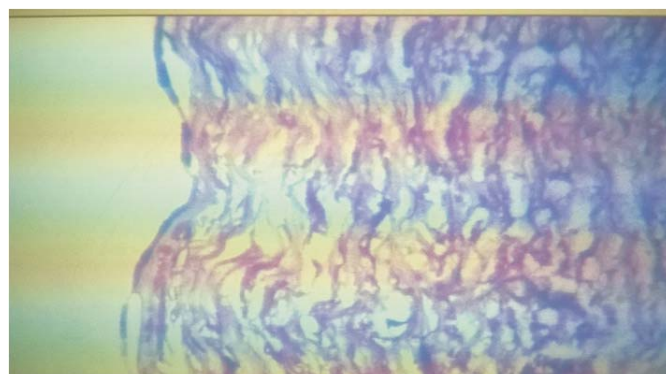


Fig 5b

The CT(Fig 1,2,3) scan was reported as cystic lesion 4cm inferior to the umbilicus on the inner surface of anterior abdominal wall which was a benign cyst or collection. A differential diagnosis of urachal cyst or a duplication cyst of sigmoid colon was provided by the radiologist. The size of the cyst being 1.3 x 1cm. Mild soft tissue thickening of umbilicus probably because of inflammation. Exploratory laparotomy was done through a lower midline incision. A cyst of about 1.5cm was found about 3cm inferior to the umbilicus in the median umbilical ligament. The urachal remnant was traced from the umbilicus to the dome of the urinary bladder and was excised along with a cuff of bladder.(Fig 4,5)The bladder was sutured. The patient's urinary bladder was catheterized preoperatively and was

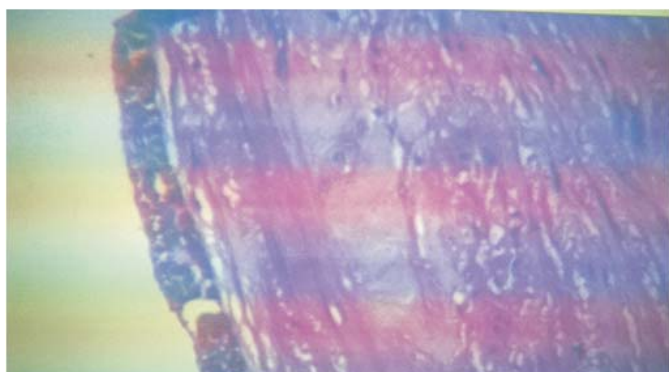


Fig 5c

The histopathology was consistent with urachal cyst. No malignancy. (Fig 5a,b and c)

DISCUSSION

Urachus is fibrous remnant of cloaca which connects the dome of the bladder to the umbilicus in adults. The cloaca in fetal life is an extension of the urogenital sinus and allantois and is derived from the yolk sac. It obliterates to become median umbilical ligament after birth which is the urachus.

Abnormalities of the urachus can present as follows:-

- 1) Patent urachus where there is a communication between the bladder and umbilicus.
- 2) Umbilical sinus urachus communicates to the umbilicus but not to the bladder. It presents as discharge from the umbilicus.
- 3) Vesico- urachal diverticulum in which the urachus communicates with the bladder but not the umbilicus. There will be urinary complaints.
- 4) Urachal cyst in which either side is obliterated. It can present as abdominal pain when infected. In adults it may open out to the umbilicus to become a sinus.

Urachal anomalies are more common in men. They are very rare in adults. The most common modes of presentation in adults are urachal cancer (51%) and urachal cyst (35%) which are usually infected.[1] Our case which presented with clinical features of hypogastric abdominal pain and tenderness were not

specific for urachal cyst. Abdominal pain can be the only symptom and can present as acute abdomen mimicking acute appendicitis or Meckel's diverticulitis.[2] It is also reported that it can present as colo-urachal-cutaneous fistula.[6] Ultrasound scan is helpful but it was normal in our case. CT scan is more diagnostic but was not able to precisely say that it is urachal cyst in our case because large bowel was seen close to the cyst giving rise to the suspicion of duplication cyst of the sigmoid colon. It is found that urachal cyst are well displayed in sagittal ultrasonogram and CT scan confirms the diagnosis.[3] B – flow ultrasound is found to be helpful to diagnose allantoic cyst in the fetus.[4] CT cannot differentiate infected urachal cyst from carcinoma arising in urachal cyst. Those cases will require a CT guided aspiration cytology to arrive at the diagnosis.[3] Even though incidence of malignancy is common in urachal remnants the overall incidence is only 0.2%.[5] Tuberculosis can occur in urachal cyst. They may present as infraumbilical mass and low grade fever.[7] Sometimes infected urachal cyst may require incision and drainage initially followed by excision. Even though open excision of the urachal cyst is the common treatment modality laparoscopic excision [8] and robotic surgery [9] has also been done.

CONCLUSION

Urachal abnormalities are rare in adults. Clinical presentation was as chronic intermittent abdominal pain which was nonspecific. A high index of suspicion required to arrive at the diagnosis. The investigation modalities didn't offer conclusive diagnosis. Excision relieved the abdominal pain.

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at Saveetha medical college reviewed the manuscript. Dr. Dinesh Kumar M.S., Assistant professor in Department of Surgery at Saveetha medical college assisted in editing. There is no conflict of interest and no financial interests.

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