

Unusual Infected Urachus Sinus in Adult

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Abstract

Few cases of urachal sinuses are reported and are usually asymptomatic unless a complication occurs, most likely infectious. Imaging is essential for diagnosis of this pathology given that surgery is curative.

Keywords: *Urachus Sinus; Imaging; Pathology*

Case Report

A 32-year-old male patient presented with no comorbidities of interest, attended the Emergency department presenting since 7 days a history of moderate mid abdominal pain centered around the umbilicus with purulent umbilical discharge. Upon interrogation, the patient reported a similar spontaneously resolving episode in the past six months. Examination of peri-umbilical abdominal regions found tender palpation with lumps identified on umbilical region. Blood markers revealed leukocytosis ($14600/\text{mm}^3$) and elevated C-reactive protein (60 mg/l). The patient was febrile at 39°C . Abdominopelvic computed tomography (CT) scan revealed a thickened walled peripherally enhanced collection extending from the umbilicus towards the pre-peritoneal space (Figure 1, white dotted arrow) and a tubular collection extending from the umbilicus to the preperitoneal space (Figure 2, white dotted arrow) and measuring 34 x 11.5 mm in size.



Figure 1

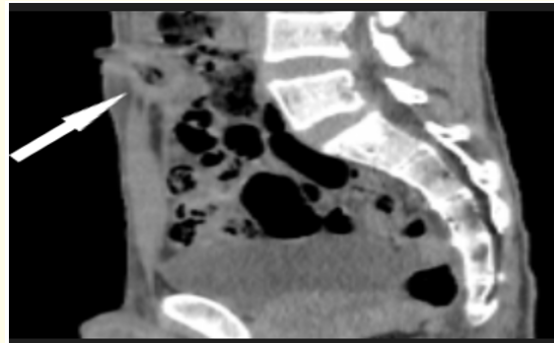


Figure 2

Discussion

The urachal is the embryonic remnant of a duct that originates from the degeneration of the allantois and cloaca and extends between the bladder vault and the umbilical cord. The reported incidence of urachal malformation is about 1/5000 in adults and significantly lower in infants at 1/150,000. Males are more prevalent than females [1].

The urachal tract can have abnormalities in four different locations, which result in four types of urachal anomalies. These include urachal cyst, patent urachus (also known as urachal fistula), vesicourachal diverticulum, and umbilical-urachal sinus.

In patients with an umbilical-urachal sinus, periumbilical pain and tenderness coupled with periodic discharge through the navel and a damp umbilicus are typically observed.

Imaging techniques, including CT and MR scans, have uncovered an unusual, thickened and elongated swelling at the top of the urachus. This anatomical structure is shaped like a spindle and is connected to the navel; however, it has no direct conduit to the bladder [2].

The surgery should be performed after infection is controlled in case urachus sinus is over infected. The excision of the urachal remnant is curative, avoiding complications such as fistulas, sepsis, recurrences, and possible malignancy [3].

Conclusion

Urachal sinus infections are rare in adults. Diagnosis is challenging and requires high clinical index suspect. Periumbilical mass, cord discharge, and sepsis are suggestive of diagnosis.

The diagnostic utility of tomography is invaluable. Surgical intervention after antibiotic treatment can prevent risk of recurrence and malignant transformation.

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