CASE REPORT

A RARE PRESENTATION OF ABDOMINAL PAIN

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ABSTRACT: Urachal cyst is a sinus remaining from allantois during embryogenesis. It is normally obliterated in early infancy. It may present as extraperitoneal mass in umbilical region. It is very rare in adults. 29/M came with complaints of pricking type of pain around the umbilicus for eight months associated with minimal serous discharge from the umbilicus for six months. There was no history of fever. No mass was palpable per abdomen; discharging sinus was seen in the umbilicus. MR Sinogram was done which confirmed urachal sinus tract with no communication to the bladder or bowel. Cystoscopy was done which was found to be normal. Laparotomy was performed, cyst extending from the umbilicus to the dome of the bladder. Hence urachal sinus tract excised along with cuff of bladder tissue and sent for histopathological examination, which confirmed it to be urachal cyst. Post-operative period was uneventful. Patient is on routine follow up. Urachal cyst is very rare in adults and may also present differently however it should not be ruled out due to its rarity.

KEYWORDS: Urachal Cyst, Median Umbilical Ligament, Obliterated Allantois.

INTRODUCTION: Urachal abnormalities result from incomplete regression of the fetal urachus. Urachus or median umbilical ligament is obliterated allantois. It gets obliterated in fetal life. It extends from the dome of the bladder 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.¹ they are more common in children than in adults, due to urachal obliteration in early infancy. Clinical presentation is variable. Here we present a case of abdominal pain with minimal serous discharge from the umbilicus.

CASE REPORT: A 29 year old male came to the surgical OPD with complaints of discharge from the umbilicus for the past one year, which was intermittent serous in nature, not foul smelling. It was associated with abdominal pain for past eight months which was pricking in nature, non-radiating with no aggravating or relieving factors. There was no history of fever, burning micturation, nausea or vomiting.

On examination the patient was afebrile. Abdomen was soft with a discharging sinus from the umbilicus. Lab investigations were normal. Ultrasonogram showed a collection in umbilical region. So MR Sinogram.² was done, which showed a blind ending sinus tract with no connection to the bowel or the bladder.

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Figure 1

Figure 2

Figure 3

Figure 4

Exploratory Laparotomy was done through a lower midline incision. Sinus in the umbilicus was probed and was found going towards the bladder was found. The urachal remnant was traced from the umbilicus to the dome of the urinary bladder and was excised along with a cuff of bladder. The bladder was sutured in two layers. The patient's urinary bladder was catheterized preoperatively and was left in place. The post-operative course was uneventful. The patient was discharged from hospital. The urinary catheter was removed after 3 weeks. No complications. Histopathology confirmed the diagnosis of urachal cyst.

DISCUSSION: The urachus developmentally is the upper part of the bladder, both of which arise from the ventral part of the cloaca. Descent of the bladder from the 5th month of development into the foetal pelvis pulls the urachus with it resulting in the formation of the urachal canal.³ the lumen of this canal progressively obliterates during foetal life, with eventual formation of a fibrous tract in early adult life.

Abdominal pain can be the only symptom and can present as acute abdomen mimicking acute appendicitis or Meckel's diverticulitis. Abnormalities of the urachus can present as patent urachus where there is a communication between the bladder and umbilicus. Umbilical sinus urachus communicates to the umbilicus but not to the bladder. It presents as discharge from the umbilicus. Vesico-urachal diverticulum in which the urachus communicates with the bladder but not the

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umbilicus. 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 or alternating sinus, which can drain to either bladder or umbilicus.

The incidence of urachal cyst in adults is unknown but it is rare.⁴ it is more common in men than women. In adults, the commonest variety is urachal cyst, with infection being usual mode of presentation. The route of infection is haematogenous, lymphatic, direct or ascending from the bladder. The commonly cultured microorganisms from the cystic fluid include *Escherichia coli*, *Enterococcus faecium*, *Klebsiella pneumoniae*, *Proteus*, *Streptococcus viridians* and *Fusobacterium*.⁵

Urachal cyst can be complicated by rupture into the peritoneal cavity leading to peritonitis.⁶ other reported complications include uracho-colonic fistula, stone formation and neoplastic transformation. The risk of urachal malignancy in adults is high and the prognosis is poor.⁷ the treatment of choice for urachal cyst is by complete primary excision.⁸

CONCLUSION: Urachal anomalies are rare in adults. Presentation is atypical; therefore, a high index of suspicion is required in order to achieve a diagnosis. A triad of lower midline mass, umbilical discharge and sepsis is suggestive, although MRI confirms the diagnosis and defines the surrounding anatomical relationship. However in this case, investigation didn't offer much of an aid to the diagnosis. Excision relieved the patient of his symptoms.

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