Calculus In Patent Urachus

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Citation

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Abstract

PATENT URACHUS is a well-known pathological and clinical entity presenting usually in infancy or in the elderly. We are reporting a case of a patent urachus containing a calculus in a 22 year old male patient which is an extremely rare finding.

INTRODUCTION

The urachus is a fibrous cord located in the extraperitoneal tissues of the anterior abdominal wall. If the urachus fails to get obliterated, four distinct types of urachal anamolies arise . In order if frequency, they are a patent urachus (50%), a urachal cyst (30%), an umbilical urachal sinus (15%), and a vesicourachal diverticulum(3% -5%) ([1,2]). We came across a rare case of urachal calculus.

CASE REPORT

The patient, a 22 year old male complained of clear, uriniferous umbilical discharge on and off since 2 years. The patient had history of umbilical pain from 2 months which was throbbing in nature and umbillical discharge had ceased. There was no history of any urinary symptoms in the past.

The umbilicus appeared normal on inspection. On palpation, a non tender retroumbilical induration was felt. There were no features suggestive of lower urinary track obstruction.

Based on history and clinical examination, a provisional diagnosis of patent urachus with inflammatory obliteration of umbilical end was considered.

Routine investigations were all normal. Xray KUB was normal.

Since the patient had no discharge from umbilicus when he presented to us, urea estimation of the discharge was not possible. An umbilical sinogram was attempted, but was not possible as the opening had sealed probably secondary to previous inflammation.

Ultrasonography of abdomen and pelvis showed retroumbilical tissue thickening with echogenic material in the centre. A well formed track was seen extending from skin to peritoneum and then extended inferiorly upto bladder

Entire thick tissue with track measured 75 mm in length and 12 mm in thickness. ([3])

Now the diagnosis of patent urachus with inflammatory obliteration of umbilical end was confirmed.

Without resection, a reinfection rate of 30% is observed ([4]). As the patient still complained of dull pain at the umbilicus, the decision for surgery was made.

Figure 1

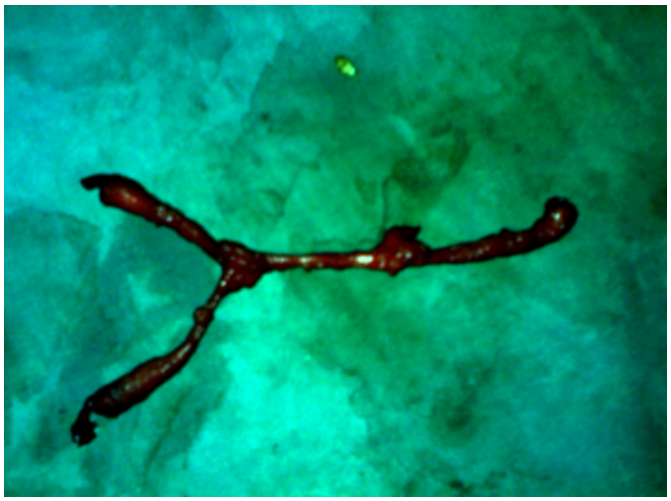
Figure 1: Intraoperative picture of patent urachus attached to dome of bladder, with the calculus seen inside the urachus.

Intraoperatively, a patent urachus was seen extending from umbilicus to dome of bladder. A rare finding in this case was that a calculus of size 6 mm was seen in the urachus, 5 mm away from bladder. The whole track along with a cuff of bladder was excised and bladder closed in two layers ([1,5]). Foleys catheter was kept in situ for 48 hours. The patients post-op recovery was uneventful. He was discharged on eighth post operative day.

Histopathology report was suggestive of a patent urachus.

Figure 2

Figure 2: Excised Specimen of Urachus with with calculus which has been removed



DISCUSSION

Patent urachus is a congenital anomaly, presenting itself either in infancy due to a widely patent track or posterior urethral valve or in elderly, secondary to lower urinary track obstruction as in benign hyperplasia of prostrate ([1]). Occasionally one encounters a young patient presenting with pus discharge from umbilicus or urine discharge secondary to either stricture urethra or a lower urinary track calculus. However our patient was a young adult complaining of urinary discharge from umbilicus without any other urinary complaint, which is a rare presentation.

Calculus are also known to be seen in urachal remnant. Most reported cases are, however are seen in urachal cysts ([7]), urachal xanthogranuloma ([6]) or vesicourachal diverticulum ([8]). Only one case of a patient with patent urachus passing a calculus from umbilicus has been reported 17 years ago ([2]). That case reported a calculus located at the umbilical end of urachus in a 22 year male, as opposed to our case where it was present near the bladder.

The diagnosis is confirmed by the demonstration of the fluidfilled canal on longitudinal ultrasound or filling with contrast medium on retrograde fistulogram or voiding cystourethrography (VCUG) ([1]).

This case was unusual in that the urachus contained a calculus, the patient was a young man who had never before shown any signs or symptoms of the condition or lower urinary track obstruction before this attack and the calculus was near the vesical end of patent urachus.

CONCLUSION

Calculus in patent urachus forms secondary to stasis and infection. Treatment is no different from that of patent urachus, that is, complete excision of the urachal tract along with a cuff of bladder, which can be done either by open surgery or laparoendoscopic approach.

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