

PATENT URACHUS WITH STONE: A CASE REPORT

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Authors present an 8-years-old boy with a patent urachus containing a stone at the mid-portion of the tractus. In the literature, we did not find any case having patent urachus and stone together, without urachal cyst.

Key words: Urachal Remnants, Patent Urachus, Urachal Stone, Surgery

Patent Urakus Traktus'ta Taş: Olgu Sunumu

Patent urakus traktusunda taş içeren 8 yaşındaki bir erkek çocuk sunulmaktadır. Dünya literatürü incelendiğinde daha önce urakal kist olmaksızın içerisinde taş oluşan patent urakus olgusu bildirilmediği görülmüştür.

Anahtar kelimeler: Urakal Remnants, Patent Urakus, Urakal Taş, Cerrahi

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Persistent urachal remnants are uncommon congenital anomalies.^{1,2} Stone develops usually due to stasis and infection of a urachal cyst.^{3,4} We did not find any case with patent urachus with stone in the literature.

In this report we present a case having a patent urachus with a stone.

CASE REPORT

An 8-year-old boy has complained of persistent urine discharge from the umbilicus since his birth. He had never been free of umbilical urine discharge. The urachal opening was in the depths of a normal-looking umbilicus. The diagnosis was a patent urachus confirmed by slow injection of contrast medium through the fistula into the bladder showing a patent urachus with a stone at the mid-portion of the tract (Figure 1).

Intravenous urogram and cystogram showed that there was no other stone or any abnormality in the urinary tract

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At the operation, the umbilical opening was circumcised and dissected free and tract freed downwards. A 6-mm stone was found at the middle of the tract, and removed. The extraperitoneal dissection was continued through a transverse subumbilical incision as far as the apex of the bladder, at which point the duct was doubly ligated with catgut and excised. The stone was a urate. Pathological examination showed no evidence of malignancy. In addition, the tract had transitional epithelium. Postoperatively the patient's recovery was uneventful.

DISCUSSION

Urachus is a tubular structure lined between fetal bladder and the umbilicus and is susceptible to complete or partial involution after the birth. Persistence of the urachus results in a wide spectrum of anomalies: Patent urachus, vesicourachal diverticulum, urachal sinus, cyst, and rare multiple urachal remnants.^{1,5} Also some complications such as infection, umbilical polyp, and stone formation can originate from urachal remnants.¹⁻⁸

Although cases of urachal cysts with stone have been reported in the literature,^{3,4} we have not found any report on patent urachus, without cyst, containing a stone. Urachal stones may develop in the patients with cyst secondary to stasis and infection. The present case had urine discharge continuously from umbilicus which resembling history of enuresis. On the other hand, the operational findings and histopathological examination showed no urachal cyst in the patient. Therefore, we can speculate that urachal stone may develop in the tract of urachus that had never closed.

Contrast fistulography, ultrasonography, computerized tomography has been suggested for diagnosis of urachal anomalies.^{1,2,5,7} A fistulography was performed by slow injection of contrast medium through the fistula into the bladder that showed patent urachus with a stone at the mid-portion of the tract. We believe that the stone may fall into the bladder, and escape from notice easily if

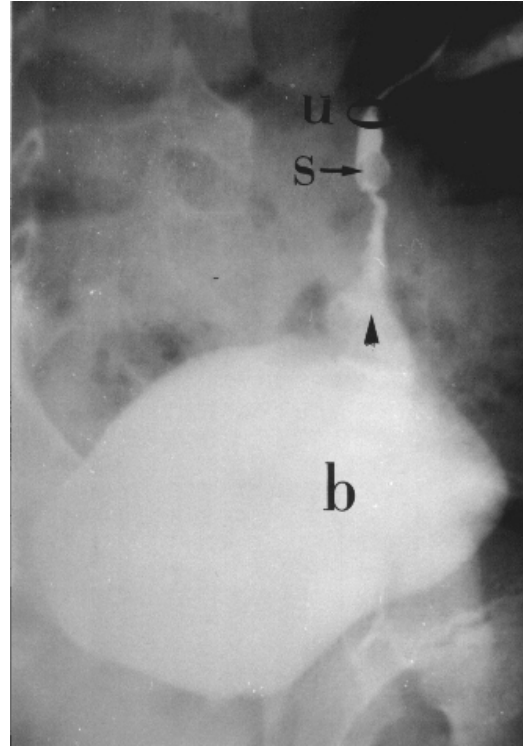


Figure 1. Radiogram with contrast showing patent urachus with a stone at the mid-portion of the tract (u: umbilical ring, s: stone, arrowhead: patent urachus, b: bladder).

the contrast medium is injected with high pressure through the urachus.

Since urachal remnants are frequently accompanied by malformations of the urinary system, attention must be paid to locating the accompanying.^{2,5,8} We performed a complete work-up, but we did not find another stone or abnormality in the urinary tract.

In conclusion, the stone may primarily develop in a patent urachus without urachal cyst. Therefore, in such cases the contrast medium used for fistulography should be given slowly through the urachus, as the stone may fall into the bladder.

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