

# Urachal anomalies

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Urachal anomalies are often detected after birth with symptoms of umbilical discharge or bleeding ( Figure 83.10 ). However, asymptomatic urachal anomalies may be incidentally found on abdominal imaging in adults. There are four principal

(c) (d) (e) (c) urachal cyst; (d) urachal sinus; (e) urachal diverticulum.

eration of the urachus, resulting in a connection between the bladder and umbilicus. A urachal cyst occurs when a portion of the urachus does not obliterate but there is no connection between the bladder and umbilicus. A urachal sinus occurs when the urachus fails to obliterate close to the umbilicus, resulting in a blind-ending tract from the umbilicus into the urachus. A urachal diverticulum occurs when the urachus fails to obliterate close to the bladder, resulting in a blind-ending tract from the bladder into the urachus. Clinical features Depending on the anomaly , symptoms include: /uni25CF umbilical discharge or bleeding; /uni25CF enlarged or oedematous umbilicus; /uni25CF lower abdominal pain; /uni25CF UTI; /uni25CF haematuria. Investigation In children, ultrasound or micturating cystography will demonstrate a patent urachus. In adolescents and adults, MRI will clearly demonstrate the anomaly ( Figure 83.11 ). If patients present with UTIs or haematuria, thorough investigation with renal tract imaging, cystoscopy and postvoid residual measurement should be performed to exclude other more common causes for these symptoms. Treatment Urachal anomalies have a small risk of malignant transformation to adenocarcinoma, with high mortality rates. Complete surgical excision is therefore recommended for both performed through open or minimally invasive (laparoscopic or robotic) approaches. Cystoscopy and insertion of a small catheter into the patent urachal tract can aid identification during surgery . The principle is to excise the urachus with a wide bladder cuff . The bladder is then closed in two layers. The urachus can be circumscribed and removed at the umbilicus, leaving the umbilicus intact for optimal cosmesis.

Figure 83.11 Magnetic resonance imaging scan showing a urachal cyst (arrow).

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