Malignant transformation of an urachal cyst

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A 27-year-old man presented to our hospital for abdominal pain and a cheesy discharge from the umbilicus which lasted for a few days. He was afebrile. The physical examination revealed periumbilical tenderness and discharge from the umbilicus. There were no signs of general infection. Otherwise, he had neither specific symptoms nor a palpable abdominal mass. Pelvic computerized tomographic (CT) scanning confirmed the presence of a cyst in the midline of the abdominal wall, with communication with the bladder and peripheral calcification. The mass was infiltrated to the perivesical fat (Figure 1). The patient was prepared for surgery. During laparotomy, a urachal cyst with the cuff of the bladder dome were removed (Figure 2). Recovery was unremarkable. The resected specimen was a partial cystectomy specimen with perivesical fat and the median umbilical ligament (Figure 3A,B). Microscopically, Carcinomatous proliferation arranged in glandular structures and isolated cells, ring-like appearance, within pools of mucus. Infiltration of the detrusor muscle (star) with peri-nervous sheath.

Malignant urachal neoplasms can arise from an urachal remnant but are rare and represent less than 1% of all bladder cancers yet 34% of all bladder adenocarcinomas are urachal in origin [1,2]. The urachus is lined by transitional epithelium, yet urachal carcinoma manifests as adenocarcinoma in 90% of cases. Urachal tumors are most commonly found in patients aged 40-70 years, and two-thirds of these cases occur in...
men [3]. The prognosis is related to the stage and degree of differentiation; however, due to their extraperitoneal location, they may be clinically silent and manifest only when invasion or metastatic disease occurs [3]. In these cases, prognosis is generally poor, with a 5-year survival rate of 6.5% - 15%.

References