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Urachus Pathology: Urachal Cyst

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ABSTRACT

The urachal cyst result of the persistence of the middle part of the urachus and obliteration of the cephalic and caudal ends. Its diagnosis is often difficult because of the variability of the clinical signs. Ultrasound and computed tomography scan can establish the diagnosis in the majority of the cases. The objective of our work is to develop this disease, rare in adults, focusing on its epidemiology, diagnostic and therapeutic.

Introduction

Medical Image

The urachus is an embryonic tubular residue of allantoic origin interposed between the peritoneum and the transversal fascia, laterally bounded by the fibrous cords of the umbilical arteries [1]. The benign pathologies of the uracha result from a defect of partial or total obliteration of the allantoic duct at the fifth month of gestation. Four congenital affections are secondary to this lack of closure: the umbilical-vesical fistula, the cyst, the sinus and the diverticulum of the urachus. Their diagnosis is established in 60% of cases in children or adolescents, but a late revelation in adulthood is always possible. The cystic formations are secondary to a defect of obliteration which can be located at any point of the path of the urachus with a predominance juxtavesicale. The persistence of a secreting mucous epithelium allows their growth and development.

Observation

We report the case of a 68-year-old patient, ATCD: allergy to PENI, which has been present for 2 years, hypogastric swelling increasing in volume progressively without notion of digestive or associated urinary disorders, evolving in a context of apyrexia and of the general condition, clinical examination revealed a non-painful hypogastric arch,

Abdominal ultrasound showed an umbilical hypoechoic collection measuring 87 mm long and the exact origin of which could not be determined. Since the ultrasound was inconclusive to eliminate the probable differential diagnoses and the field was allergic, an abdomino-pelvic MRI was requested, demonstrating a median uniloculated fluid formation that did not enhance after gadolinium injection, regular contours probably related to a cyst of the urachus.

The patient was operated under AG, by a median incision under umbilical allowing the resection of the cyst in total with simple operative follow-up.

The anatomopathological examination of the surgical specimen concluded that there was a peritoneal cyst with no sign of malignancy.

Discussion

The urachus occurs at birth in the form of an obliterated fibrous cord connecting the bladder dome to the umbilicus [2].

The cyst of the urachus results from the persistence of the middle part of the urachus and the obliteration of the cephalic and caudal extremities. It is a more or less voluminous median formation, sub-umbilical, due to the accumulation of serous and mucinous secretions. It is often small and asymptomatic. His discovery is often fortuitous on the occasion of an ultrasound or during a surgical operation.

Clinically, the cyst of the urachus remains asymptomatic for a long time. It may increase in volume until it is palpable in the hypogastric region. It can also be manifested by urinary arrays, not specific to the type of dysuria, pollakiuria or haematuria [3]. Surinfections of cysts of the urea with staphylococcus aureus are the most frequent [4]. They represent up to 23% of cases according to Blichert-Toft and Nielsen [5]. These superinfections may be at the origin of peritonitis [6], abscess of retzius space [7].

The treatment of malformative affections of the urachus is surgical in order to prevent both the risk of infectious recurrence estimated at 30% according to Blichert [8] and that of neoplastic degeneration, although some authors advocate abstention outside complications [9,10].

Conclusion

Urachus pathologies are very rare but require to be known by urologists. Lack of appropriate treatment exposes the patients to the risks of symptoms recurrence, infectious complications or adenocarcinomatous degeneration.

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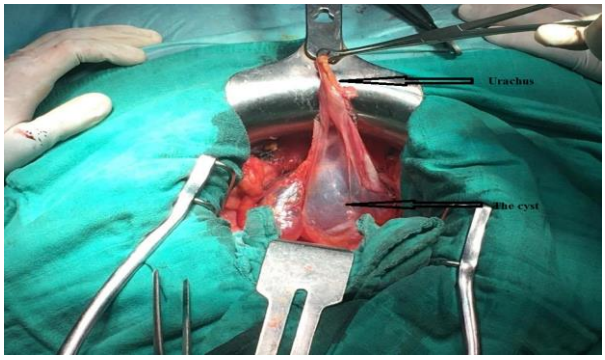

Figure 1. Perioperative appearance of the urachal cyst.

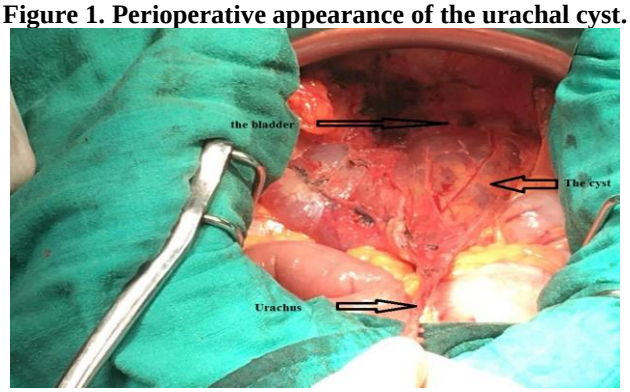

Figure 2. Perioperative appearance of the urachal cyst.

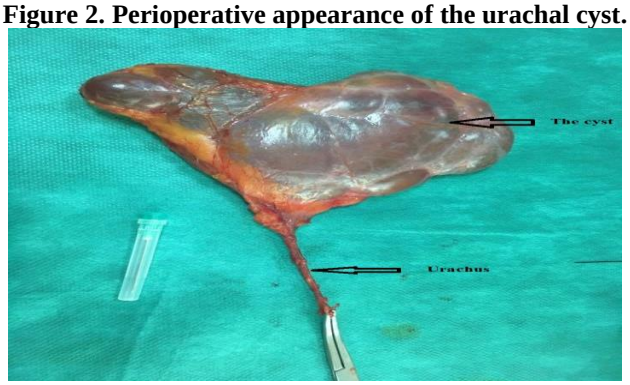

Figure 3. The urachal cyst after complete resection.

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