Papillary cystadenocarcinoma (Muellerian type) of the retroperitoneum
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Section: Abdominal imaging
Area of Interest: Abdomen
Procedure: Contrast agent-intravenous
Procedure: Staging
Imaging Technique: CT
Imaging Technique: PACS
Special Focus: Cysts Neoplasia Case Type: Clinical Cases
Authors: G. Adelsmayr1, C. Beham-Schmid2, C. Salvan-Schaschl1
Patient: 38 years, female

Clinical History:

During routine physical examination, a cystic lesion was noted adjacent to the inferior pole of the right kidney in a 38-year-old healthy woman. The patient complained of slight right-sided abdominal pain recently, otherwise did not report any significant discomfort.

Imaging Findings:

A subsequent contrast-enhanced CT examination detected a hypodense cystic retroperitoneal lesion with peripheral nodular contrast media enhancement, measuring 10 x 7.5 x 12 cm inferior to the right kidney without infiltration of the surrounding tissue.

Discussion:

The patient underwent resection of the tumour, weighing 500g. Ovaries and Fallopian tubes were macroscopic tumour-free. Histological examination revealed a papillary cystadenocarcinoma (Muellerian type) of the retroperitoneum (Fig. 3).

Retroperitoneal cystic masses are of diverse origin and can be classified in either neoplastic or non-neoplastic. A substantial overlap of CT findings in various retroperitoneal cysts poses a challenge for radiologists [1]. Malignant Muellerian tumours usually arise in the genitals, most frequently the uterus, with very rare appearance in the retroperitoneum. A Muellerian duct remnant in the retroperitoneal tissue and hormonal influences may be the cause of Muellerian retroperitoneal cysts [1]. The pathogenesis of retroperitoneal Muellerian adenocarcinomas is controversial, occurring most frequently in elderly postmenopausal women with a possible link to previous irradiation and endometriosis [2, 7].

Cysts of the retroperitoneal space are rare with an incidence reported from 1 in 5750 individuals to 1 in 250 000 [9]. To our knowledge, primary Muellerian adenocarcinomas of the retroperitoneum were discussed in several case reports [2, 3, 4, 5, 6, 7, 8].

Treatment includes total resection of the tumour whereat the capsule must stay intact to avoid spread of tumour cells [7]. PET is recommended to monitor treatment effectiveness, metastasis and recurrence. A long term follow-up
is mandatory [2].

**Differential Diagnosis List:** Papillary cystadenocarcinoma (Muellerian type) of the retroperitoneum, Endometrioma, Dermoid cyst, Cystadenocarcinoma

**Final Diagnosis:** Papillary cystadenocarcinoma (Muellerian type) of the retroperitoneum.

**References:**


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Figure 3

Description: Histopathology of surgically removed retroperitoneal mass, compatible with cystadenocarcinoma. Origin: Prof. Beham-Schmid, Dep. of Pathology, Medical University Graz, Austria
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