Granulosa Cell Tumor of the Ovary
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Section: Genital (female) imaging
Imaging Technique: Ultrasound
Imaging Technique: CT
Imaging Technique: MR
Case Type: Clinical Cases
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Patient: 87 years, female

Clinical History:
Abdominal distention since 2 months. Physical examination revealed a palpable abdominal mass. Small bowel peristalis was normal. Laboratory tests were normal.

Imaging Findings:
The patient was admitted to the hospital with distention of the abdomen of about 2 months duration. There were no other complaints. Physical examination revealed a palpable abdominal mass. Small bowels peristalis was normal. On admission, laboratory tests were normal. Plain radiograph, ultrasonography and CT scan of the abdomen were performed.

Discussion:
Granulosa cell tumor is a low-grade malignant neoplasm and accounts for only 2-3% of all ovarian tumors. Although uncommon, this tumor has also been described in the male testis. Based on clinical presentation and histological characteristics, distinction is made between a juvenile and adult type. Patients present with non-specific symptoms such as abdominal pain, distention or bloating and, in a majority of cases, with endocrine manifestations due to hormonal activity of the tumor. The CT appearance of granulosa cell tumors is that of a large, well-defined low-attenuation ovarian mass and is slightly different from that of epithelial ovarian carcinoma, which is more amorphous and less clearly defined. Granulosa cell tumors commonly contain solid and multicystic, posthemorrhagic components, which also are different from those of other ovarian cancers. CT scan is recommended for diagnosis and staging. Large size of the tumor, presence of enlarged lymph nodes and ascites are prognostically unfavorable signs. Nevertheless, surgical staging remains the gold standard, as extrapelvic lymph nodes may measure only a few millimeters and involvement may be detected only by histology or cytology of peritoneal washings. As for other ovarian cancers, CT is furthermore recommended for identifying residual disease following surgery, during follow-up and for detection of recurrence.

Differential Diagnosis List: Granulosa Cell Tumor of the Ovary

Final Diagnosis: Granulosa Cell Tumor of the Ovary

References:
MacSweeney JE, King DM. CT, diagnosis and follow-up of pure granulosa cell tumor of the ovary. Clin Radiol 1994;

Figure 1

Description: Plain film of the abdomen in upright position shows a large, homogeneous soft tissue mass, filling up most of the abdomen. No signs of pneumoperitoneum or bowel obstruction are noted.

Origin:
Description: Ultrasonography of the abdomen demonstrates the very hypoechoic aspect of the mass, consisting of multiple cavities, separated from each other by septations (arrowhead). Origin:
Description: Contrast enhanced CT scans of the abdomen, at two levels confirm a huge mass, extending from the liver to the pelvis. The mass is homogeneous with density values of 20 HU. The lesion contains multiple septations and a wall, which are focally irregularly thickened. Peripheral displacement of bowel loops due to the mass effect is noted. Origin:
Description: Same as 3a Origin:
Description: Macroscopy of the resected specimen reveals a huge encapsulated mass, measuring 32 x 27 x 20 cm in size and weighting 10.9 kg. The mass was completely removed surgically and recovery was uneventful. Pathologic examination revealed a cystic granulosa cell tumor of the ovaries, of the adult type. Origin: