History
Teenage female with intermittent abdominal pain and increasing abdominal girth.

Diagnosis
Serous Borderline Ovarian Tumor

Discussion
Serous borderline ovarian tumor is an epithelial tumor derived from serous or mucinous cell types and associated with extraovarian extent but an indolent course. This tumor typically occurs in teenagers and young adults who often present with abdominal pain and/or distention. CA-125 levels are elevated in 90%.

Usual US features include predominantly cystic adnexal mass with solid components, macro- and micro-lobulated contour, and prominent vascularity occasionally with ascites, peritoneal and visceral implants, and adenopathy. CT and MRI show similar features although extraovarian disease may be more easily detected.

Epithelial tumors of the ovary are usually solid and cystic with the likelihood of malignancy proportional to the solid component. Papillary projections are characteristic of borderline and malignant epithelial tumors. Lymphatic involvement is fairly common and predicts higher recurrence rate but does not affect survival. Extraovarian implants to the contralateral ovary, omentum and peritoneum occur in a minority of patients; biologic activity (invasive versus noninvasive) of the implants is the most important prognostic factor. Surgical excision is considered curative for localized disease and chemotherapy may be added for advance/invasive disease.

Findings
US-Large solid and cystic pelvic mass with frondlike extensions arising from the left ovary and contiguous with the uterine fundus and right ovary, extensive ascites without omental or mesenteric implants, and mild increased vascularity on color Doppler interrogation.

Reference
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