

## MUCINOUS CYSTADENOMA OF THE RIGHT OVARY

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**Key-word:** Ovary, neoplasms

**Background:** A 14-year-old, previously healthy girl noticed a rapidly increasing abdominal circumference in the last four weeks before presentation. Except for abdominal discomfort, no other physical complaints were noted. The patient had a normal, regular menstrual cycle. On clinical examination extreme distension of the abdomen was observed. The skin showed multiple striae, presumably due to the rapid increase of size of the abdomen. Biochemical examinations were negative for tumor markers a-feto-protein, b-HCG and CEA.



	1	2A
Fig.		3
2B		4

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### Work-up

On ultrasonography of the abdomen, transverse section at the level of the umbilicus (Fig. 1) a large, well demarcated, hypoechoic, multi cystic tumor is seen.

CT scan of the abdomen (Fig. 2) included an unenhanced scan (A) that demonstrates an intraperitoneal, cystic tumor with multiple septations and bilateral hydronephrosis, more pronounced at the left side and a contrast-enhanced scan, reformatted image in the sagittal plane (B) which showed slight wall enhancement of the mass septations.

On the intraoperative photograph (Fig. 3) a normal uterus (curved arrow) and left ovary (thick arrow) are recognized. At the top of the picture a small part of the excised tumor (asterisk) is shown.

Figure 4 is the microscopy (H&E staining) photograph.

### Radiological diagnosis

The epithelial lining of the cysts consists of columnar epithelial cells with bland, basally situated nuclei and abundant mucinous cytoplasm.

Radiological findings were consistent with a cystic tumor of unknown origin. Histopathology of the resected specimen revealed a *mucinous cystadenoma of the right ovary*.

As no invasion of surrounding tissue was seen and no positive lymph nodes were found, the tumor was staged as FIGO 1A.

### Discussion

The differential diagnosis of intraperitoneal cystic tumors of childhood and adolescence is considerable. These tumors can be classified according to their origin: gastrointestinal tract and mesentery, genital tract, hepatobiliary system, and spleen. However, due to their size, it is not always possible

to determine the origin of the tumor prior to surgery.

In the presented case, the tumor was found to originate from the ovary, which is relatively rare in this age group. Only 1% of all childhood tumors is of ovarian origin. In contrast to ovarian tumors in adults, the majority of ovarian tumors in children are germ cell tumors, while only a minority is epithelial in origin. In a series of 1700 ovarian tumors in girls under the age of 20 years, only 17% were of epithelial origin. Another study has reported data acquired in girls under the age of 20 years from five community based hospitals, and found a 2.4% malignancy rate for epithelial ovarian tumors. A study in seven children with mucinous cystadenoma showed no evidence of disease in any of them at long-term follow-up.

In this study, both tumors with low malignant potential, as well as invasive tumors were studied.

Contralateral disease is rare, but occurs in the adult group in up to 7% of cases, even if the ovary looks normal on visual inspection. Due to the small number of cases reported in childhood and adolescence, the incidence of contralateral disease in this age group is unknown.

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