



IMAGES IN PAEDIATRICS

Giant borderline mucinous cystadenoma of the ovary

Cistoadenoma mucinoso borderline gigante de ovario



María Ruiz Medina^{a,b,*}, Fernando Vázquez Rueda^{a,b}, María Rosa Ibarra Rodríguez^{a,b}, Rosa Ortega Salas^{a,b}, Rosa María Paredes Esteban^{a,b}

^a Unidad de Gestión Clínica de Cirugía Pediátrica, Hospital Universitario Reina Sofía, Córdoba, Spain

^b Unidad de Gestión Clínica Anatomía Patológica, Hospital Universitario Reina Sofía, Córdoba, Spain

Received 8 July 2025; accepted 26 July 2025

Available online 18 October 2025

The incidence of ovarian tumors is low in the pediatric age group, accounting for around 1%–5% of solid tumors. In contrast to adults, the most common ovarian tumors in children are germ cell tumors, and cases of borderline cystadenoma are rare.^{1,2}

We present the case of a female patient aged 13 years with a giant borderline mucinous cystadenoma of the ovary. The patient presented with abdominal pain, nausea, vomiting and a palpable mass. The sonographic and CT findings suggested cystadenoma rather than cystadenocarcinoma (Fig. 1). Tumor markers were normal. The patient underwent a midline laparotomy and left salpingo-oophorectomy, which revealed a multilocular cystic neoplasm of irregular consistency and mucinous content weighing 7 kg (Figs. 2 and 3). The microscopic examination of the specimen revealed several solid foci of atypical cells compatible with borderline mucinous cystadenoma, as it met the criteria of nuclear stratification into two to three layers but without stromal invasion.³ We must underscore the importance of the histological analysis in the definitive diagnosis, as it allows differentiation between benign, borderline and malignant



Figure 1 Coronal CT scan: multilocular trabeculated cystic mass measuring 34 cm × 25 cm × 16 cm.

DOI of original article:

<https://doi.org/10.1016/j.anpedi.2025.503985>

* Corresponding author.

E-mail address: mariaruiamedina.97@gmail.com

(M. Ruiz Medina).



Figure 2 Intraoperative image: giant ovarian mass occupying the entire peritoneal cavity.



Figure 3 Gross appearance: multilocular cystic mass with mucinous contents and solid foci revealed upon cutting.

tumors. The cytologic evaluation was negative and the post-operative outcome was favorable, without need of adjuvant treatment.

Borderline mucinous cystadenoma is a rare tumor in children that clinicians ought to consider in the presence of an ovarian mass, as early diagnosis and correct surgical planning enable satisfactory outcomes.

References

1. Vázquez Rueda F, Murcia Pascual FJ, Siu Uribe A, Ortega Salas RM, Escassi Gil Á, Garrido Pérez JJ, et al. Análisis de los tumores sólidos ováricos pediátricos en nuestra población. *An Pediatr.* 2020;92(2):88–93.
2. Al Jama FE, al Ghamdi AA, Gasim T, al Dakheel SA, Rahman J, Rahman MS. Ovarian tumors in children and adolescents - a clinical study of 52 patients in a university hospital. *J Pediatr Adolesc Gynecol.* 2011;24:25–8.
3. Iwasaki M, Taira K, Kobayashi H, Saiga T. Ovarian mucinous cystadenoma of borderline malignancy in a premenarchal girl. *J Pediatr Adolesc Gynecol.* 2010;23(3):e119–23.