Gliomatosis Peritonei in a child following ruptured immature ovarian Teratoma: A case report and ranagement insights

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Background

Gliomatosis peritonei (GP) is a rare condition characterized by the presence of mature glial tissue in the peritoneal cavity, typically associated with immature ovarian teratomas. While GP is usually benign and carries a favorable prognosis, malignant transformation has been reported.

Case Presentation

- 12-year-old girl with no prior medical history pres
- Symptoms: Abdominal pain and vomiting
- Clinical examination: Right iliac fossa mass.
- ***CT scan***: Large, heterogeneous abdominopelvic mass with calcifications, likely of left ovarian origin
- Tumor markers ➔ elevated AFP (2170 UI/L) and negative β-hCG, suggesting an immature teratoma with a yolk sac component.

➔Emergency surgery was performed due to suspected ovarian torsion: **Ruptured bilobed left ovarian mass (~20 cm), adherent to the omentum, transverse colon, and small bowel (fig.1)**

Fig.1. Intraoperative findings

➔A left adnexectomy, omentectomy, and peritoneal biopsies were performed

- ***Anatomopathological results:*** **Grade 3 immature teratoma without yolk sac elements. Tumor deposits in the omentum.**
- Postoperative chemotherapy was administered.
- Three-month follow-up imaging showed **disease progression per RECIST 1.1, with enlarging subdiaphragmatic, hepatic hilar, and pelvic nodules, plus new subcapsular hepatic lesions;**
- **PET scan confirmed hypermetabolic activity suggestive of viable tumor.**
- Following multidisciplinary review, cytoreductive surgery was performed, removing nodules from the right hemidiaphragm, hepatic hilum, pelvis, and paracolic gutter (Fig.2)

Fig.2. Gliomatosis peritonei

- The postoperative course was uneventful, and ***histopathology*** revealed ***mature teratoma tissue consistent with gliomatosis peritonei.***

Conclusion

- The transformation of an immature ovarian teratoma into GP is rare.
- Complete surgical resection is the key treatment for mature peritoneal implants.