Pediatric Pseudo-Meigs' Syndrome Secondary to a Sertoli-Leydig Cell Tumor

Marla A. Sacks[1], Varag Abed[1], Carlos Reck[1], Anna Kamenieva[2], Yaoping Zhang[3], Francisca T. Velcek[1]

[1]Department of General Surgery, Division of Pediatric Surgery, SUNY Downstate Health Sciences University, Brooklyn, NY, USA
[2]Department of Pathology, SUNY Downstate Health Sciences University, Brooklyn, NY, USA
[3]Department of Pediatrics, Division of Pediatric Hematology-Oncology, SUNY Downstate Health Sciences University, Brooklyn, NY, USA

Introduction

Meigs' syndrome: triad of pleural effusion, ascites, & benign fibroma or thecoma; account for 1% of ovarian tumors

Pseudo-Meigs' syndrome: triad of a pleural effusion, ascites, & pelvic/ abdominal tumor that is not an ovarian fibroma or thecoma

→ benign or malignant

→Cancer Antigen 125 (CA-125) may be elevated, but is nonspecific

Presentation

She is a 12-year-old female, with asthma and obesity (BMI 37), presented with abdominal pain, irregular menses, 10 lb weight loss & shortness of breath for one month.

Tumor markers:

→elevated CA-125: 1227 (ref <35 U/mL)

→alpha-fetoprotein (AFP): 2385 (ref <8.8 ng/mL)

→lactate dehydrogenase (LDH): 987 U/L (ref 157–272 U/L)

Imaging: ultrasound, CT scan

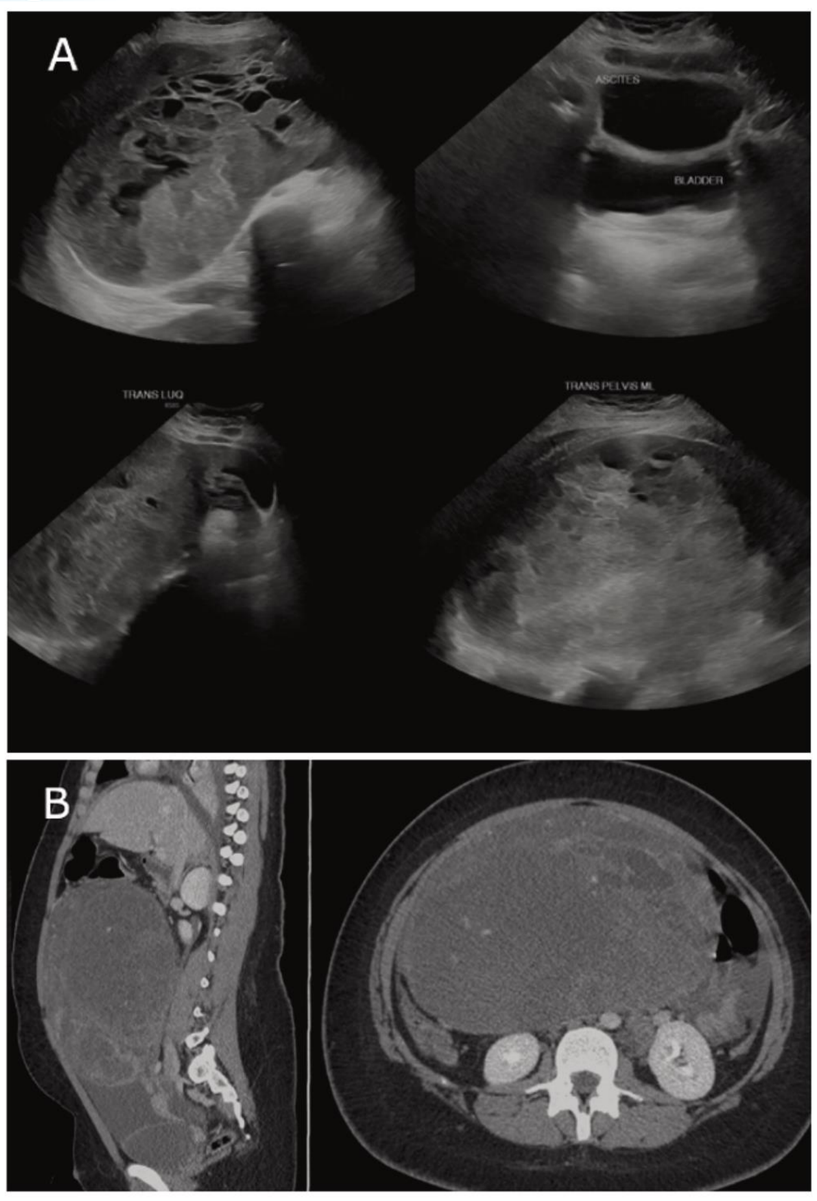

Fig. 1. A. Abdominal ultrasound showing a very large echoic heterogeneous structure involving the entire abdomen and ascites.
B. Sagittal and axial cuts of a Computed Tomography (CT) Abdomen/Pelvis showing a 21.6 × 21.3 × 14.6 cm complex cystic mass in the mid-abdomen with internal and mural enhancement.

Surgery

Right tube thoracostomy with a 20-French chest tube (200cc), exploratory-laparotomy, & left salpingo-oophorectomy

Gross specimen: 22cm (length), 3.7 kg

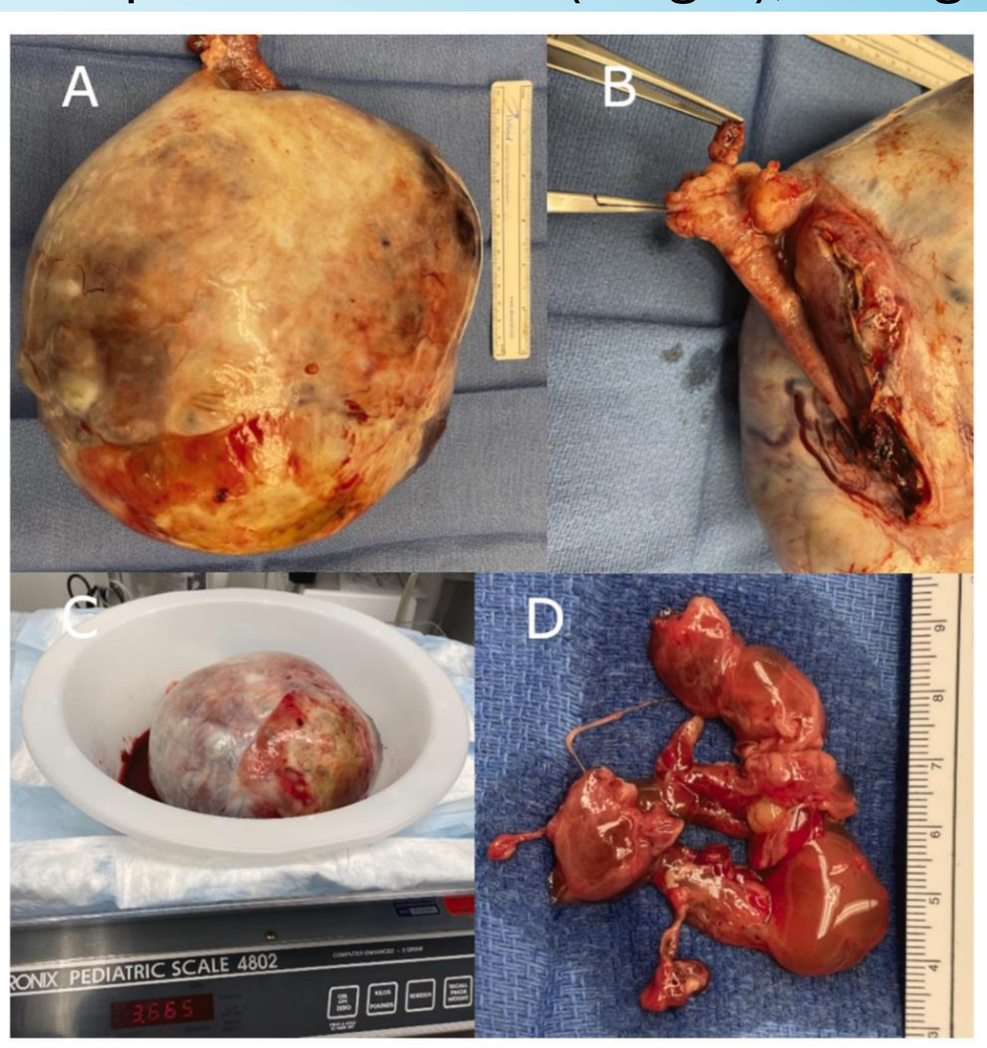

Fig. 2. A-C. A large, well-encapsulated, tumor involving the entire right ovary measuring 22 cm in diameter and weighing 3.67 kg. Multiple solid nodules measuring two to three millimeters are present over the left fallopian tube.
D. Mucoid particles that were removed from the abdomen.

Her post-operative course was unremarkable, except for prolonged ileus, chest tube was removed on POD 3 & she was discharged on POD 9.

Pathology: high-grade immature teratoma, primitive neuroectodermal tumor, or component of poorly differentiated Sertoli-Leydig cell tumor (SLCT).

Conclusion

Pseudo-Meigs' syndrome secondary to a SLCT in an adolescent is an our best knowledge, this has not been reported before in the literature.

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