

# Retroperitoneal Yolk Sac Tumor Diagnosed by Endoscopic Ultrasound

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## INTRODUCTION

- Yolk sac tumors are rare malignant germ cell tumors, which usually occur in the ovaries or testes.
- However, they can arise elsewhere including the mediastinum, retroperitoneum and central/peripheral nervous system.
- We present a case of a retroperitoneal yolk sac tumor diagnosed by endoscopic ultrasound (EUS).

## CASE PRESENTATION

- A 38-year-old male presented with a 2 month history of nausea, abdominal pain, and unintentional weight loss.
- On physical exam he had right lower quadrant tenderness and a large palpable mass in the periumbilical area.
- His labs were pertinent for an elevated alpha-fetoprotein of 15,691 ng/mL
- Computerized tomography (CT) of his abdomen and pelvis revealed an 18.3 cm retroperitoneal mass concerning for malignancy (A).
- EGD and EUS showed a large extrinsic mass invading the duodenum (B,C), and forceps and fine needle biopsies (FNB) with a 19 gauge Franseen needle were obtained.
- Pathology of the retroperitoneal mass revealed a yolk sac tumor (D). Patient then underwent bilateral testicular ultrasound, which revealed 3 discrete masses in the right testicle.
- Before the patient could pursue management of his newly diagnosed metastatic yolk sac tumor, he developed septic shock secondary to bowel perforation and eventually passed away.

## CT ABDOMEN & PELVIS



A) CT of abdomen & pelvis demonstrating an 18.3 cm retroperitoneal mass

## EGD



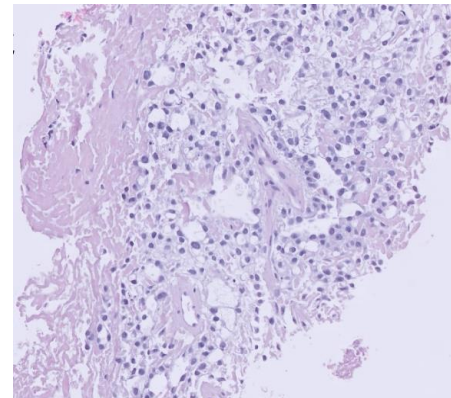
B) EGD showing a large extrinsic mass invading the duodenum

## EUS



C) EUS demonstrating a large hypoechoic retroperitoneal mass

## PATHOLOGY



D) Pathology of the retroperitoneal mass revealing a yolk sac tumor

## DISCUSSION AND CONCLUSION

- Patients with germ cell tumors usually present with a painless mass in the testes.
- Patients with extragonadal tumors can have symptoms such as vague abdominal pain, abdominal distension, back pain, chest pain, cough, fatigue, or unintentional weight loss.
- Mortality is higher in extragonadal disease, and it is imperative to make a diagnosis early.
- Extragonadal yolk sac tumors in men can be either metastatic or primary.
- It is important to perform a thorough physical exam along with obtaining a testicular ultrasound.
- EUS is effective at visualizing and biopsying lesions in the gastrointestinal tract, pancreas, mediastinum, and retroperitoneum.
- EUS FNB has been utilized in the diagnosis of retroperitoneal germ cell tumors, but very few case reports exist.
- Once a diagnosis has been made, treatment can include orchiectomy and chemotherapy with cisplatin, etoposide, and bleomycin.
- One should consider a germ cell tumor in the differential of a retroperitoneal mass.