Case Report: Primary Germ Cell Tumour Presenting as a Luminal Duodenal Mass

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Introduction: Extragonadal germ cell tumors (GCTs) are rare and account for only 1-5% of all GCTs. They most commonly occur in the mediastinum or sacrococcygeal region; however, they can occur at various other locations, including the neck and retroperitoneum. We report a case of a primary GCT discovered endoscopically as a luminal duodenal mass.

Case: A 23-year-old man presented with a 3-month history of severe post prandial epigastric pain, fevers, night sweats, and 20 lb weight loss. An esophagogastroduodenoscopy showed a friable, hard lesion in the duodenum. Adenocarcinoma was suspected, and an endoscopic biopsy was performed. Pathology showed a nonseminomatous germ cell tumor with embryonal and possible yolk sac components. A computed tomography scan showed a 4.5 cm mass circumferentially encasing the third part of the duodenum with aortocaval and retroperitoneal lymphadenopathy, consistent with metastases. An ultrasound ruled out a primary testicular mass. The patient went on to have chemotherapy and is under surveillance for persistent disease.

Discussion: Gastrointestinal tract (GIT) GCTs usually represent metastases from a primary testicular or retroperitoneal tumour, and can occur in up to 5% of cases. Primary GIT GCTs are even more infrequent and typically present with bowel obstruction or gastrointestinal bleeding. Little is known about the pathogenesis of GIT GCTs, although some theories have been proposed. Accurate histologic subtyping is important, as it has implications for patient prognosis and treatment. GCTs should be considered in the differential diagnosis for any patient with GIT symptoms and a midline mass lesion, particularly young adults.