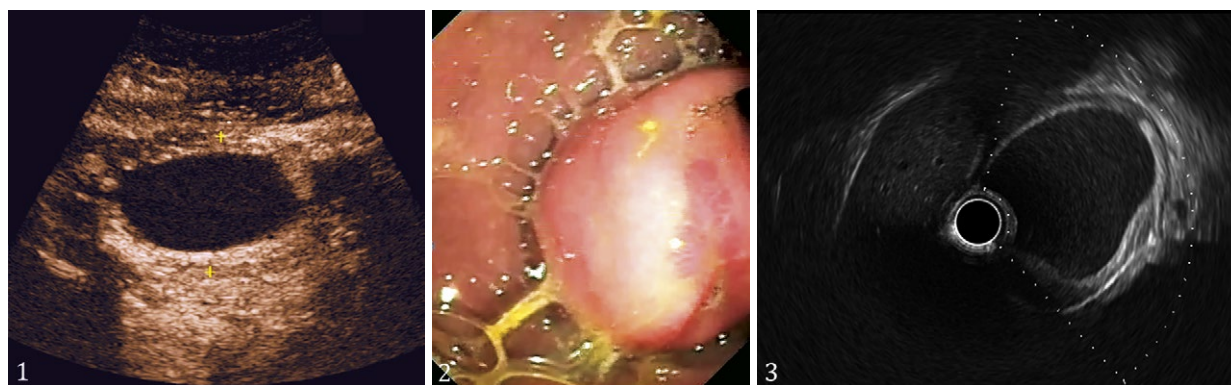


# Contrast-Enhanced Ultrasound in the Imaging of an Adult Stomach Duplication Cyst

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Gastric duplication cysts (GDCs) are rare congenital anomalies usually diagnosed at a very young age. Although unusual in the adult population, they should be considered as a differential diagnosis of abdominal cystic lesions.

A 28-year old male patient presented with postprandial mild epigastric pain and fullness. Abdominal ultrasound detected a non-septated 8 cm cystic lesion, adjacent to the inner part of the posterior gastric wall. Contrast-enhanced ultrasound (CEUS) with SonoVue® (Bracco, Italy) depicted in the early arterial phase (14-15 sec post injection of 2.4 ml contrast agent) an ovoid cystic-like lesion sized 8/4.6 cm, with non-enhanced inner part, without protrusions or septations and with a smooth, double-layered vascularized 6 mm wall without connection to the ventral part of the pancreas (Fig. 1). A slight reduction of the intensity of the wall enhancement in the venous phase was noted. Upper endoscopy revealed a soft oval ulcerated submucosal lesion in the antrum, partially overlapping the pylorus without obstruction (Fig. 2). Radial endoscopic ultrasound showed a double-layered wall with anechoic content (Fig. 3). The images corresponded to a benign gastric duplication. Magnetic resonance enterography excluded similar lesions along the gastrointestinal tract. A laparoscopic gastrotomy with cyst removal was performed. Histology showed a fibrous wall with granulation tissue and ectopic stomach mucosa and a foci of ectopic pancreatic glands in the submucosa.

Gastric duplications are classified as cystic (>80%) or tubular [1], often with other anomalies present [2]. Up to 10% of GDCs contain foci of ectopic pancreatic tissue, which may mimic a pancreatic pseudocyst or neoplasm [2, 3]. Clinical manifestation in adults is usually attributed to complications (infection, ulceration, obstruction, rarely malignant transformation) [4].

Endoscopic ultrasound, computed tomography and magnetic resonance imaging have been widely used in the diagnosis of duplications cysts [5]. Although CEUS, to our knowledge, has not been reported in GDCs so far, might be a useful, non-irradiating, easy to perform technique for GDCs assessment and differential diagnosis.

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**Conflicts of interest:** None to declare.

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