

## Introduction

- Ectopic liver tissue (ELT) is seldom reported in the literature. It is usually asymptomatic and incidentally found.<sup>1,2</sup>
- However, ELT has a strong association with malignant transformation to hepatocellular carcinoma (HCC), making removal of this tissue essential.<sup>1,2</sup>
- Presented is a rare case of ELT found in the stomach.**

## Case Presentation

- A 78-year-old male with a past medical history of hypertension and gastritis presented to clinic for worsening gastroesophageal reflux disease (GERD) over the past six months.
- The patient reported GERD symptoms for the past twenty years that he had been self-treating with over-the-counter proton pump inhibitors, probiotics, and digestive enzymes without relief.
- On presentation his vitals, physical exam, and blood work were unremarkable.

## Clinical Evaluation & Treatment

- The patient underwent **esophagoduodenoscopy** (EGD) revealing
  - Esophagitis
  - Large paraesophageal hernia
  - Single 15-millimeter submucosal nodule in the anterior wall of the gastric body
- Cold forceps biopsies** obtained from the body and antrum of the stomach were unremarkable and negative for *H. pylori*.
- He was referred for **endoscopic ultrasound** (EUS) where a **fine needle biopsy** of the benign-appearing gastric body submucosal nodule was performed (*figure 1a*).
- Three passes were made with a 22-gauge ultrasound biopsy needle using a transgastric approach. A visible core of tissue was obtained.
- Final **cytology** demonstrated
  - Superficial gastric mucosa
  - Detached benign liver tissue (*figures 1b, 1c*)
- No dysplasia or malignancy was seen.

## Discussion & Conclusions

- ELT has an incidence of 0.24-0.47%. Of the reported cases, ELT is most commonly seen in the gallbladder or pancreas.<sup>2</sup>
- The etiology of ELT is unknown but is thought to be associated with errors in embryological development.<sup>3</sup>
- Most ELT is asymptomatic but can develop the same pathologies as the orthotopic liver. It can also cause abdominal pain, bleeding, and compression of neighboring tissues.<sup>1,2,3</sup>
- There is also a strong association between HCC and ELT, necessitating biopsy and endoscopic removal.<sup>1,2</sup>
- This case demonstrated ELT incidentally found in the gastric body during EGD and was biopsied by a fine needle using EUS guidance.
- Histology was without features to suggest malignancy, but to prevent malignant transformation endoscopic resection was recommended.**

## References

<sup>1</sup>Bal A, Yilmaz S, Yavas BD, Ozdemir C, Ozsoy M, Akici M, Kalkan M, Ersen O, Saripinar B, Arkan Y. A rare condition: Ectopic liver tissue with its unique blood supply encountered during laparoscopic cholecystectomy. *Int J Surg Case Rep.* 2015;9:47-50. doi: 10.1016/j.ijscr.2015.02.027. Epub 2015 Feb 20. PMID: 25723748; PMCID: PMC4392331.

<sup>2</sup>Zhang ZL, Wang JL, Guo CL, Li Q, Li L, Pang Y, Meng XC. Ectopic liver tissue in the esophagus: A case report. *Medicine (Baltimore).* 2019 Apr;98(17):e15260. doi: 10.1097/MD.00000000000015260. PMID: 31027076; PMCID: PMC6831271.

<sup>3</sup>Yahya AI, Ehtewish M and Endash S. Choriostoma (Heterotopic Liver is it of Concern). *Ann Surg Perioper Care.* 2016; 1(1): 1005. ISSN:2573-5314

## Imaging

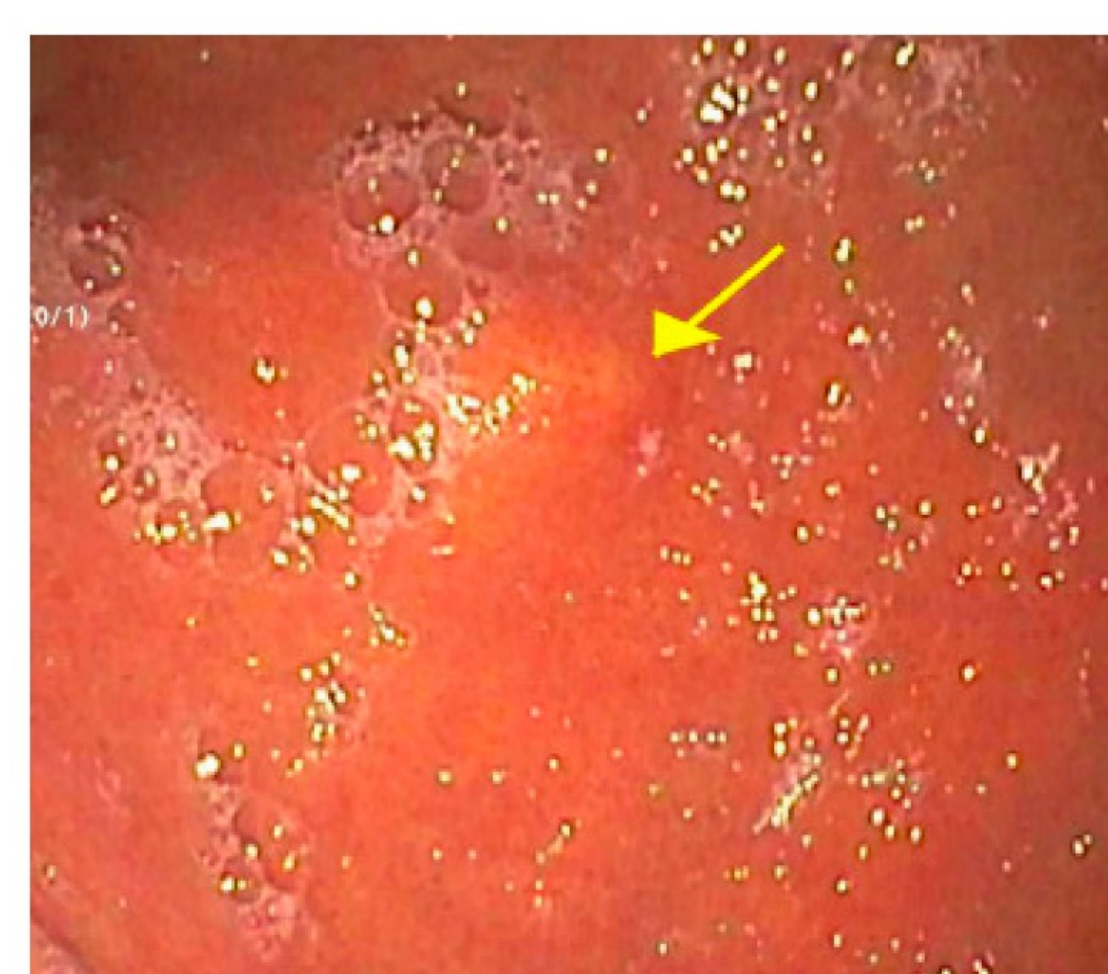


Figure 1a

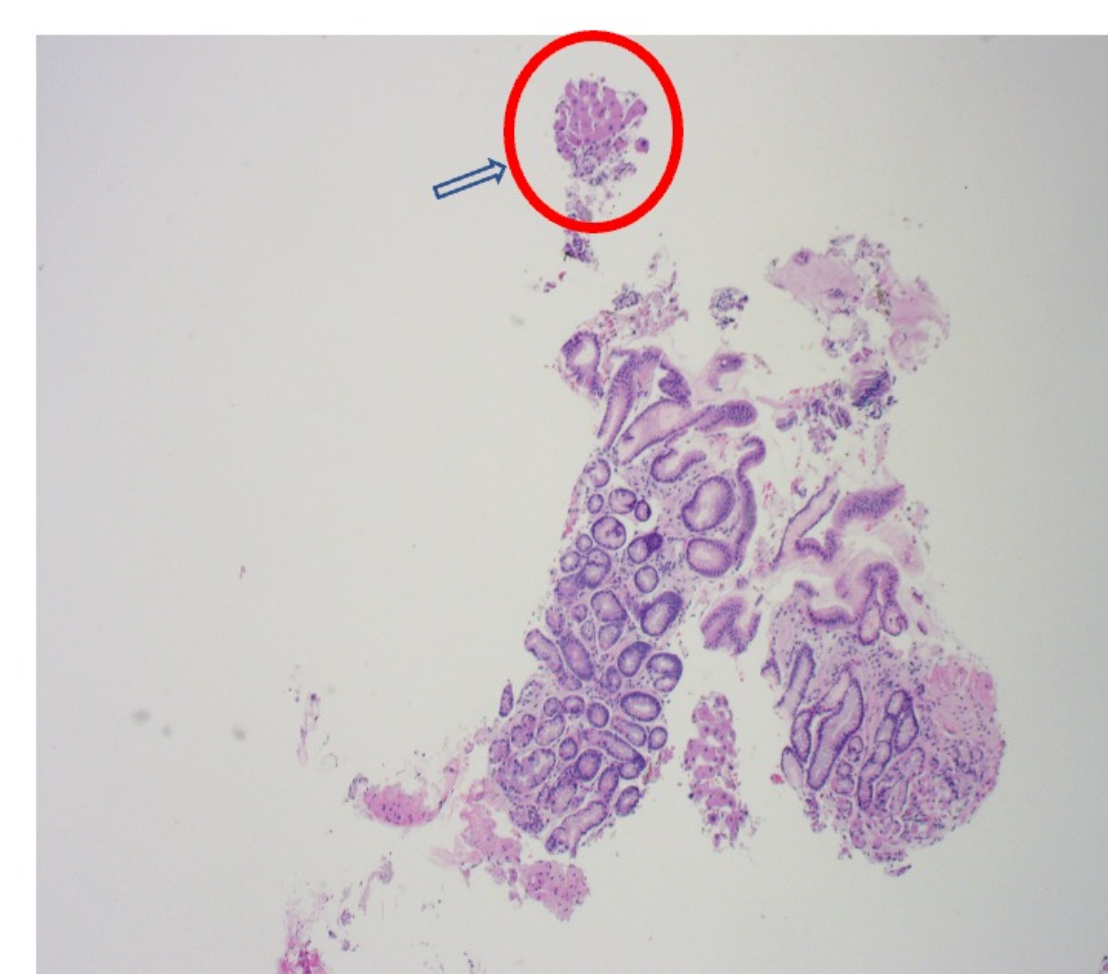


Figure 1b

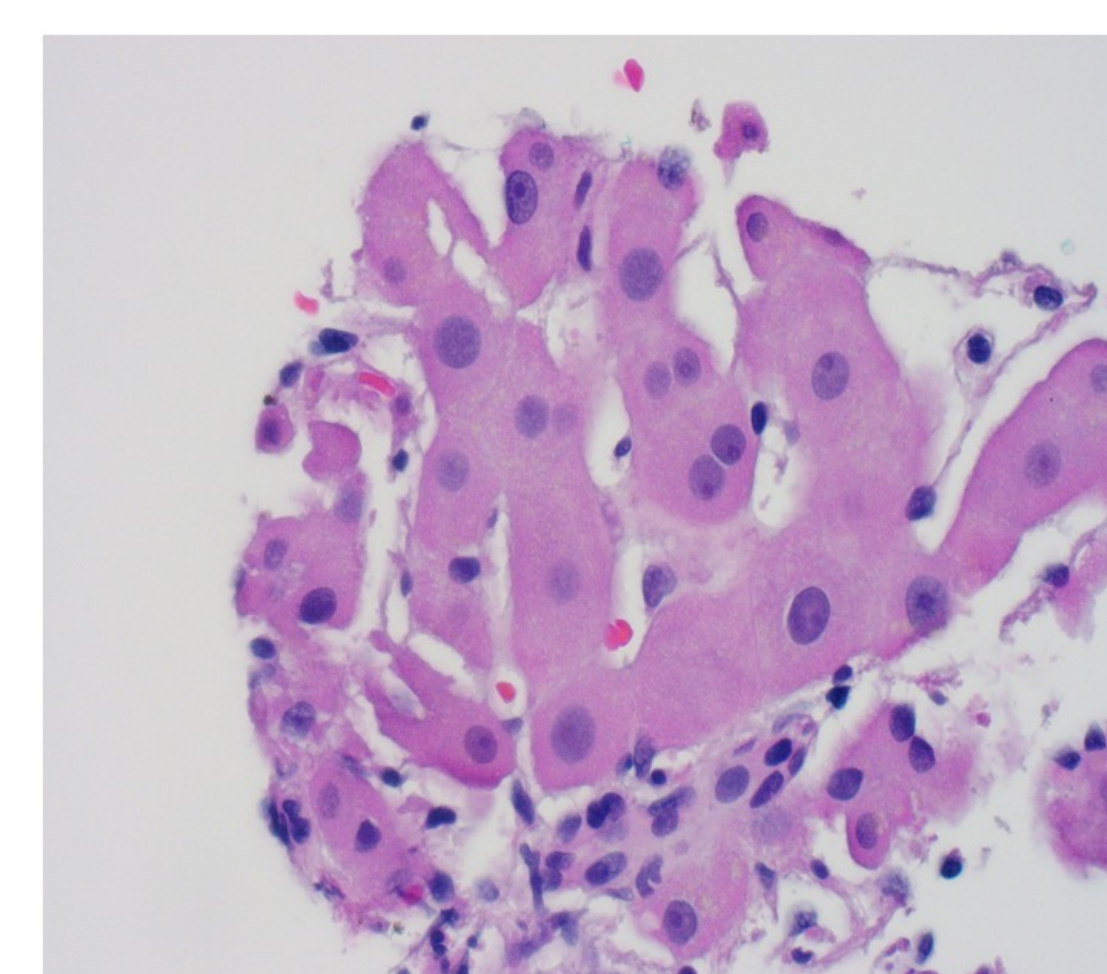


Figure 1c

**Figure 1a.** Arrow indicating nodule in gastric body, as seen by endoscopic ultrasound.

**Figure 1b.** Hematoxylin and eosin stain with 100x magnification. Normal gastric glandular mucosa. Arrow indicating benign unremarkable hepatic tissue found in gastric body.

**Figure 1c.** Hematoxylin and eosin stain with 200x magnification. Benign unremarkable hepatic tissue found in gastric body.