

## Introduction

- Peptic Ulcer Disease (PUD) accounts for over 750 million dollars in medical spending yearly.
- Incidence of uncomplicated PUD is approximately 1 case per 1000 person years and complicated incidence was approximately 0.7 cases per 1000-person years.<sup>1</sup>
- The most common causes of PUD are H pylori and NSAID use, rarer causes include infections (HSV, CMV), vascular insufficiency, infiltrating diseases, or hormonal hypersecretion states.
- Here, we present an interesting endoscopic finding of a perforated peptic ulcer with fistulation in the duodenal bulb.

## Case Report

- A 73 year old man with past medical history of hypertension, hyperlipidemia, cocaine and marijuana use as well as peripheral artery disease.
- He presented for dry gangrene of his 2<sup>nd</sup> and 4<sup>th</sup> toes, he underwent amputation and femoral bypass during which he was loaded with Plavix.
- 12 hours after his procedure he became hypotensive, tachycardic, had melenic stools, and had a 3 gram drop in his hemoglobin. He was started on PPI, resuscitated with fluids and pRBCs.
- Endoscopic evaluation which showed frank blood in the stomach, duodenal bulb and duodenum. A lumen was visualized near the pylorus which was able to be traversed via the scope. The lumen had areas of ulceration and bleeding without any visible vessels. [Figures 1-4].

## Endoscopic Images

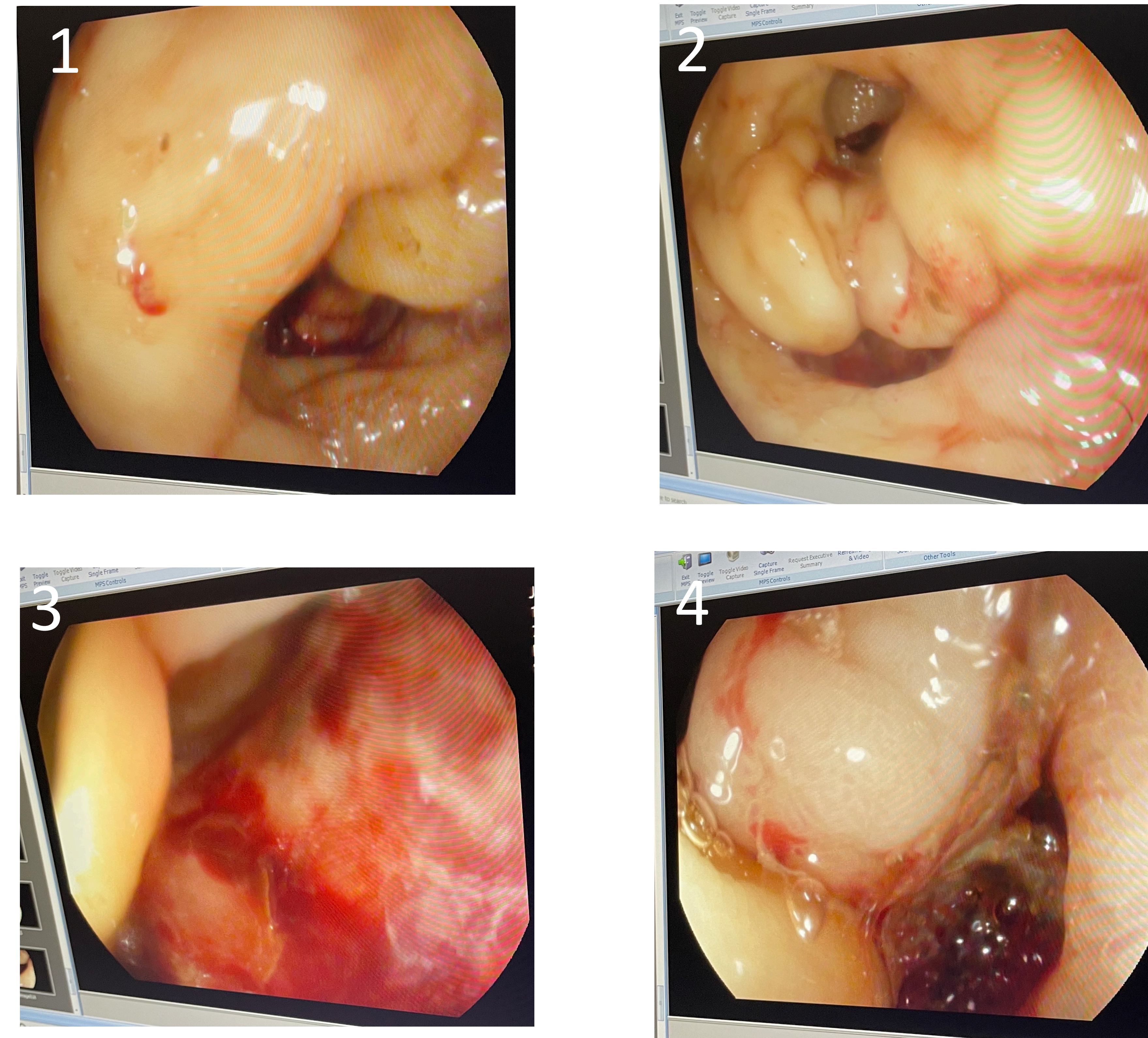


Figure 1-4:

- (1) Endoscopic view of antrum with fistulized lumen
- (2) Double lumen sign: pylorus superior and fistulized lumen inferior
- (3) Ulcerated gastric mucosa adjacent to lumen
- (4) Adherent clot adjacent to fistulized lumen

## Discussion

- PUD rates in the United States have been steadily decreasing, likely due to increased education regarding NSAID use and risk.
- This patient used approximately 1200 mg of ibuprofen daily over the past 6 months. In addition to NSAIDs he used cocaine daily. Cocaine is associated with many GI complications including bowel ischemia, gastric ulcers and gangrene, but the pathogenesis is less understood.
- The most likely mechanism is the vasoconstrictive alpha-adrenergic receptors in the gastric and mesenteric arteries, and the inhibitory effect on gastric motility also increases exposure to acid therefore predisposes to ulcer formation.<sup>2</sup>
- He had a gastroduodenal fistula, also known as an acquired double pylorus. Although this can be congenital, this was likely due to a perforated ulcer in the pre-pyloric region.
- The double pylorus is a rare finding and has been reported in 0.001-0.4% of EGD.<sup>3</sup> This patient had no symptoms, until he was loaded with Plavix. He was treated with PPI and will follow up outpatient.

## References

1. Lin KJ, García Rodríguez LA, Hernández-Díaz S. Systematic review of peptic ulcer disease incidence rates: do studies without validation provide reliable estimates? *Pharmacoepidemiol Drug Saf.* 2011 Jul;20(7):718-28. doi: 10.1002/pds.2153. Epub 2011 May 27. PMID: 21626606
2. Gadupti V, Tariq H, Ihimoyan A. Atypical Gastric Ulcer in an Elderly Cocaine User. *Case Reports in Gastrointestinal Medicine.* vol. 2013, Article ID 795258, 3 pages, 2013. <https://doi.org/10.1155/2013/795258>
3. Ofosu A, Brana C, Culliford A, Gadupti V. A case report of double pylorus: an unusual complication of peptic ulcer disease: 1885. *Off J Am Coll Gastroenterol ACG.* [Internet]. 2018;113.