

# What the Heil? *H. heilmannii* Causing Peptic Ulcer Disease and Severe GI Bleeding

## Introduction

- *Helicobacter pylori* (*H. pylori*) has a well-known association with peptic ulcer disease (PUD) and gastritis.
- Other helicobacter species exist that can cause similar diseases.
- *H. heilmannii* previously known as *Gastrospirillum hominis* was first described as an organism causing gastritis in 1987
- *H. heilmannii* is found in less than 1% of patients undergoing EGD for upper GI symptoms whereas *H. pylori* is found as many as 60% of patients with similar symptoms
- Rates of complications of *H. heilmannii* infection in patients include: 82% gastritis, 16% PUD, 2% gastric cancer, and severe GI bleeding in our patient
- Concurrent infection with *H. pylori* and *H. heilmannii* is uncommon
- Typical means of *H. pylori* testing has unclear sensitivity for detecting *H. heilmannii*

## Case Description 1<sup>st</sup> Hospital Stay

- 63 year old man with CAD s/p stent on aspirin who recently underwent a root canal and was taking ibuprofen for pain presented with a 1 day history of mixed melena and hematochezia
- Patient had no prior history of PUD or GI bleeding
- Required 3 units packed red blood cells (PRBCs)
- EGD performed revealing two Forrest Class III gastric ulcers & three duodenal ulcers including 7mm Forrest class IIc ulcer.
- Gastric biopsies were taken
- Discharged with Pantoprazole BID
- Hgb was 8 g/dl on discharge

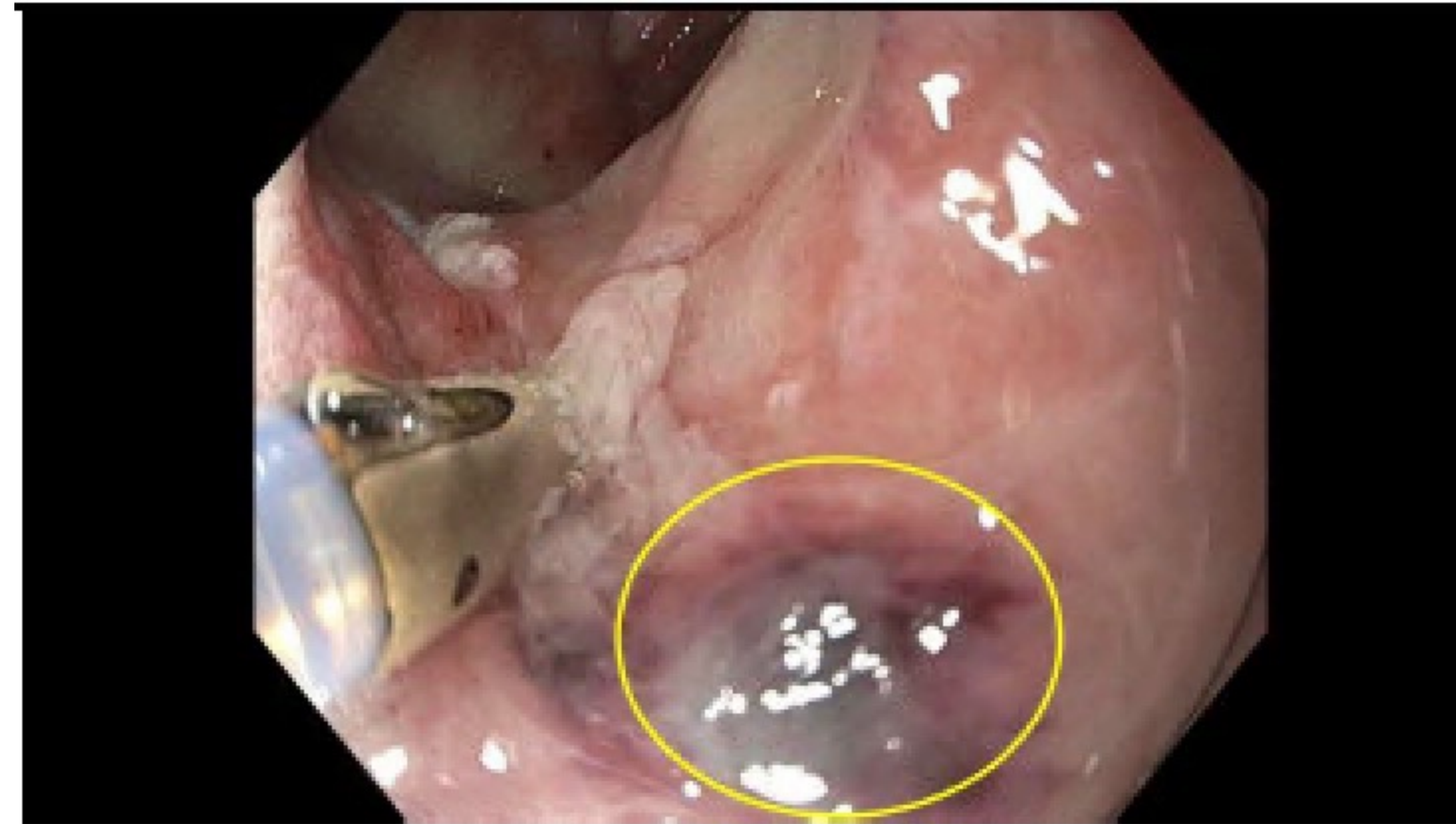


Image 1: Duodenal ulcer with adherent clot (Forrest Class IIb)

## Case Description 2<sup>nd</sup> Hospital Stay

- Presented one day after discharge with similar symptoms requiring ICU admission
- Hgb 5.4 g/dl with BP 77/22 mmHg
- Transfused 5 units PRBCs, no pressor support required
- EGD revealed 12mm Forrest Class IIb duodenal ulcer (Image 1)
- Ulcer injected with epinephrine & single hemoclip placed with hemostasis
- Original EGD biopsy results showed chronic gastritis & helicobacter-like species found to be *Helicobacter heilmannii* by genotyping
- Biopsy negative for concurrent *H. pylori* infection
- Patient treated with triple therapy of pantoprazole, amoxicillin and clarithromycin
- EGD 2 months post treatment confirmed eradication of *H. heilmannii* and healing of all ulcers

## Conclusion

- In addition to *H. pylori*, *H. heilmannii* is a potential cause of GI symptoms in patients presenting with gastritis and PUD
- Testing for *H. heilmannii* infection can be considered when *H. pylori* testing is negative and other causes of PUD are not present
- Definitive diagnosis of *H. heilmannii* is via genetic PCR amplification
- Treatment of *H. heilmannii* is identical to *H. pylori* with quadruple therapy with PPI, bismuth subsalicylate, metronidazole and tetracycline QID for 14 days
- Triple therapy using pantoprazole, amoxicillin and clarithromycin can be used but use should only be considered in areas where macrolide resistance is <15% and patient has no penicillin allergy, typically in the US triple therapy efficacy is below 80%
- Eradication should be confirmed after treatment

## References

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