



An Uncommon Case of Helicobacter pylori-Negative Gastric MALT Lymphoma

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ABSTRACT

Approximately, 10% of gastric mucosa-associated lymphoid tissue (MALT) lymphomas are not related to Helicobacter pylori (H. pylori) infection and hence H. pylori negative. Isaacson and Wright first reported on the extra-nodal marginal zone B-cell lymphoma of the stomach in 1983. The pathogenesis of these H. pylori-negative gastric MALT lymphomas remains unclear and many speculations have been made.

One possibility is those genetic alterations resulting in NF-κB activation. A proportion of H. pylori-negative gastric MALT lymphoma patients responds to eradication therapy.

H. pylori eradication therapy is to be considered as a first-line treatment for gastric MALT lymphomas regardless of their H. pylori infection status

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INTRODUCTION

- Colonic hemangiomas are rare in clinical practice and Gastric MALT (mucosa-associated lymphoid tissue) lymphoma is a type of non-Hodgkin's lymphoma often found to have concomitant H. pylori infection.
- Although the majority of patients are infected with H. pylori, approximately 5-10% of patients are not.
- Recent studies on H. pylori-negative gastric MALT lymphomas have suggested that H. pylori eradication therapy is effective in a proportion of patients with this disease and could even be considered a first-line treatment.
- Here, we present this uncommon and unique case.

CASE PRESENTATION

- A 58-year-old man, with PMH of prostate cancer and DVT not on anticoagulation, was initially admitted for seizures and altered mental status under the impression of bacterial meningitis.
- He had an upper GI bleed during the same hospitalization, and an inpatient upper endoscopy showed a Forrest 1a ulcer in the gastric fundus s/p clipping (**Fig 1A**). A repeat upper endoscopy three months later showed gastric erythema and a 6 mm non-bleeding healing gastric ulcer in the fundus (**Fig 1B**).
- The pathology report of antrum biopsy showed fundic and transitional zone gastric mucosa, mild chronic gastritis without intestinal metaplasia or dysplasia, and the presence of a few atypical lymphocytes.
- The body biopsy showed fundic/body type gastric mucosa, and findings were compatible with low-grade B-cell lymphoma, favoring extranodal marginal zone lymphoma of MALT lymphoma (Fig 1C)
- Immunohistochemistry studies showed atypical lymphocytes CD20+, CD79a+, PAX5+, CD5-, CD10-, BCL6-, BCL2+, CD43+, CyclinD1-, BCL6, and CD10, highlighting very small, scattered, disrupted germinal centers.

CASE PRESENTATION (cont.)

- CD3 and CD5 highlighted numerous admixed T-cells. Ki-67 was overall low (5-10%). Kappa(ish) and Lambda(ish) stains showed that the plasma cells were kappa-restricted, and had low mitotic activity, supporting the diagnosis of marginal zone lymphoma.
- The patient was empirically treated for H. pylori with Bismuth-based quadruple therapy.
- The patient improved on follow-up with GI.
- Hematology-Oncology is currently planning for FISH for t(11;18) and/or MYD88 mutation status to assist in the differential, as the H. pylori strain was negative on biopsy.

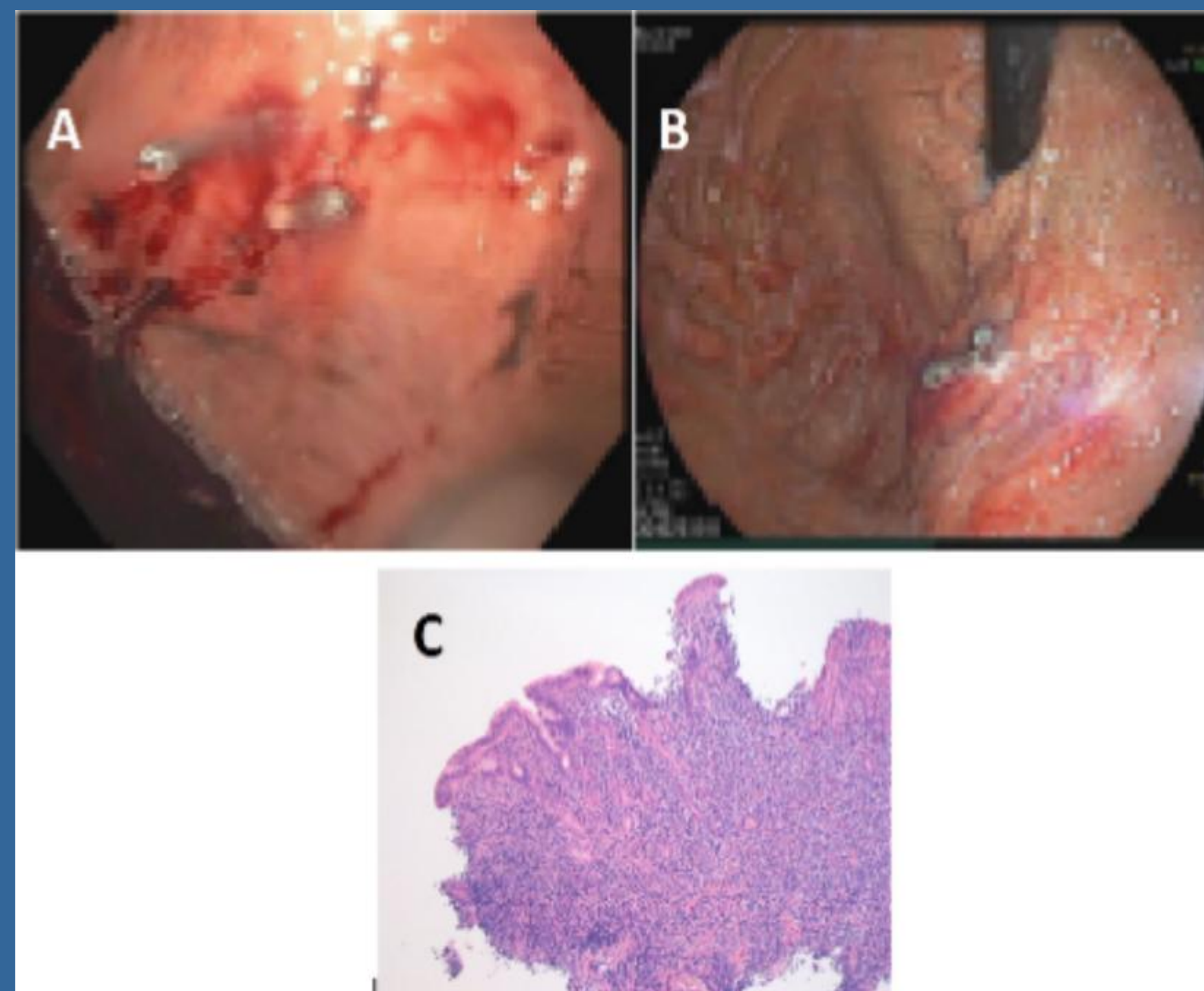


Figure 1: A) Upper endoscopy image of Forrest Class 1a ulcer s/p two clips. There is a spurting gastric ulcer with spurting hemorrhage.
B) Upper endoscopy of gastric erythema and a 6 mm non-bleeding healing gastric ulcer in the fundus.
C) Pathology: Low power view, H&E stain, of antrum biopsy showing fundic and transitional zone gastric mucosa, mild chronic gastritis without intestinal metaplasia or dysplasia, and the presence of a few atypical lymphocytes

DISCUSSION

- There are several theories describing the pathways for lymphoid proliferation in H. pylori-negative patients, but the exact mechanism has yet to be determined.
- Currently, it is deemed multifactorial.
- There is a high incidence of translocation (11;18)(q21;q21) in H. pylori-negative MALT lymphomas, which may be a predictive factor for non-responsiveness to antibiotic therapy [1].
- The literature also recommends using radiation therapy for patients with early-stage (Lugano I/II) gastric MALT lymphomas that are negative for H. pylori infection, with clinical remission rates of up to 100%. Conversely, organ-preserving therapy has no added benefit and surgical treatment of gastric MALT lymphoma is rarely pursued.
- Therefore, it is recommended to eliminate the presence of H. pylori and to evaluate for translocations t(11;18)(q21;q21) [2].
- Recent studies have suggested that H. pylori eradication therapy is effective in some proportion of patients with this disease and could be considered a first-line treatment.

CONCLUSION

- H. pylori-negative gastric MALT lymphoma has frequent t(11;18)(q21;q21). Antibiotic treatment should be given to such cases even though they would need additional therapies.

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