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A CASE REPORT: DILEMMA IN DIAGNOSING AMYLOIDOSIS IN CHRONIC HAEMORRHAGIC GASTRITIS



UNIVERSITI TEKNOLOGI MARA

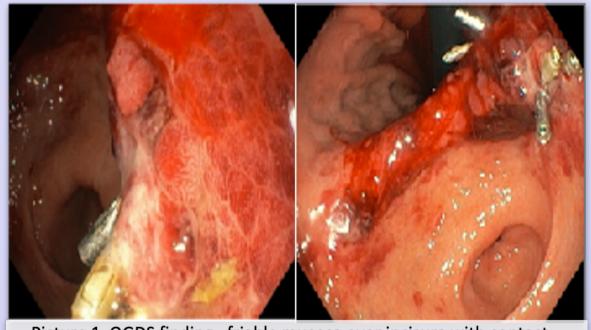
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INTRODUCTION

The clinical manifestations of amyloidosis may vary depending the organ involved. In the gastrointestinal system, it may present with bleeding, hepatomegaly, splenomegaly, or malabsorptive symptoms.

CASE REPORT

A 73-year-old lady with a history of chronic anemia experienced multiple episodes of hospital admissions requiring blood transfusions and endoscopic examinations over a two-year period. Her initial esophagogastroduodenoscopy (OGDS) examination showed a bleeding incisura, and subsequent OGDS revealed chronic haemorrhagic gastritis changes with friable mucosa that bled upon contact.

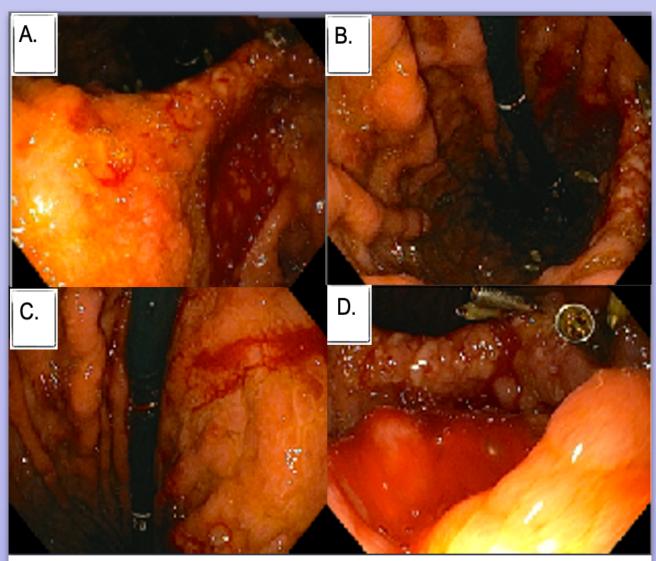


Picture 1. OGDS finding : friable mucosa over incisura with contact bleeding (3 months prior to surgery)

The endoscopically obtained tissue biopsies showed inflammatory changes and intestinal metaplasia. in the interim, she developed atrial fibrillation requiring anticoagulants, which worsened her condition. Consequently, a decision was made to proceed with total gastrectomy to rule out gastric malignancy. Total gastrectomy was performed as abnormal mucosa was observed up to the gastric cardia. Subsequently, histopathological examination reported AL amyloidosis deposition in the gastric, esophageal, and duodenal tissues. Postoperatively, the patient had a slow recovery, experiencing cardiac failure symptoms with a raised proBNP (20,000pg/ml). She also experienced 2 more episodes of lower gastrointestinal bleeding. Subsequently, due to the chronicity of her illness, she was investigated for multiple myeloma but, regrettably, succumbed to recurrent gastrointestinal bleeding

DISCUSSION

AL amyloidosis is the most common type of amyloidosis but is often detected late. Mucosa that bled upon contact. The endoscopically obtained tissue biopsies showed inflammatory changes and intestinal metaplasia. Without a high suspicion index for amyloidosis, the diagnosis can be delayed until irreversible organ dysfunction manifests. Prognosis is based on the involvement of the heart therefore NT-proBNP, albuminuria and alkaline phosphatase are screened¹.



Picture 2. Incisura(A.&D.), corpus and fundus (B.&C.) OGDS finding preoperatively shows friable mucosa over incisura with contact bleeding until cardia

The pathophysiology of gastrointestinal amyloidosis involves the deposition of fibrils deposition into the arteriole of the submucosa layer, which extends into lamina propria followed by muscularis mucosae, then submucosa and muscularis propria².

OGDS findings are nonspecific and include erosions, ulcers, hematoma, stricture, or cancer-mimicking lesions. The highest deposition of amyloid was in the duodenum, 100% followed by the stomach 95% and the colorectum, $91\%^3$.

In the case of AL amyloidosis, autologous stem cell transplantation could be performed in systemic cases, while localized gastrointestinal amyloidosis may be managed with localized surgical excision in symptomatic patients³.

CONCLUSION

Although amyloidosis is a rare disease, a high index of suspicion should be maintained in patients with chronic gastrointestinal bleeding, particularly when there is involvement of other organs like the heart and kidney.

REFERENCES

- 1. Palladini, G., P. Milani, and G. Merlini, *Management of AL amyloidosis in 2020*. Blood, The Journal of the American Society of Hematology, 2020. **136**(23): p. 2620-2627.
- 2. Picken, M.M., *The pathology of amyloidosis in classification: a review.* Acta haematologica, 2020. **143**(4): p. 322-334.
- 3. Tada, S., et al., *Endoscopic and biopsy findings of the upper digestive tract in patients with amyloidosis*. Gastrointestinal endoscopy, 1990. **36**(1): p. 10-14.
- 4. Iida, T., H. Yamano, and H. Nakase, *Systemic amyloidosis with gastrointestinal involvement: Diagnosis from endoscopic and histological views*. Journal of gastroenterology and hepatology, 2018. **33**(3): p. 583-590.
- Dahiya, D.S., et al., *Gastrointestinal amyloidosis: a focused review*. World Journal of Gastrointestinal Endoscopy, 2021.
 13(1): p. 1.