

Bleeding GIST in Posterior Wall of Stomach- Emergency Exploration, Gastrotomy and Submucosal Resection of Lesion- A Life Saving Approach

Aishath Azna Ali¹, Chishti Tanhar Bakth Choudhury^{2*}, Abdulla Ubaid³, Muzayyan Mohamed⁴ and Mohamed Shamil Waheed⁵

¹Consultant Surgeon, GI, Bariatric & Metabolic Surgery, IGMH & DH, Maldives

²Consultant Surgeon, IGMH & Dharumavanthe Hospital, Male, Maldives

³Sr Consultant & HOD, Surgery Dept, IGMH & DH, Maldives

⁴Consultant surgeon, IGMH&DH, Maldives

⁵Surgical Medical Officer, IGMH & DH, Maldives

*Corresponding author: Chishti Tanhar Bakth Choudhury, Consultant Surgeon, IGMH & Dharumavanthe Hospital, Male, Maldives, Tel: +960 333-5335; E-mail: chishtichoudhury@gmail.com

Received: January 01, 2025; Accepted: January 19, 2025; Published: January 28, 2025

Abstract

This 56 years old gentleman had history of severe bleeding through mouth, admitted in a hospital and underwent emergency endoscopy and failed to evaluate and biopsy of lesion as huge bleeding and obscuring field of vision. Resuscitation done and stabilized. For further evaluation shifted to tertiary care centre (IGMH&DH). Re endoscopy scheduled and a lesion found in fundic area posterior wall of stomach. Lesion was bled on touch and with highly vascularity, cant proceeding for biopsy and planned for elective laparoscopic sleeve gastrectomy. Before elective surgery 2 days after re endoscopy, at morning patient starts with profuse hematemesis and hemodynamic instability. Emergency exploration was done by upper midline incision. Stomach found hugely distended and loaded with blood. NG tube was difficult to introduce in stomach for its blood content. Incision extended up to left subcostal and planned for gastrotomy to resect the lesion and evacuate blood. More than 1.5 l of clotted blood removed. Lesion identified and it was pedunculated (approx. 8 cm × 4 cm), highly vascular with umbilication. Submucosal resection done with closure of base. Anterior wall of stomach repaired and drain tube kept in left paracolic gutter. Patient shifted to Critical care unit for initial supportive management and improved gradually.

Keywords: Hematemesis; Bleeding; Endoscopy

1. Introduction

Hematemesis is generally a disastrous clinical situation for patient and care givers also. Gastrointestinal stromal tumor is not so uncommon now a days and presents dyspepsia, anorexia, hematemesis, melaena and in advanced case as lump and metastatic features. Usually in chronic liver disease and carcinomatous lesion sometimes patients become habituated, but acute onset of hematemesis, hematochezia is cumbersome for patient and healthcare professionals. Massive hematemesis unstabilises hemodynamics [1,2]. Gastrointestinal stromal tumor (GIST) in stomach is one of the leading causes of sudden severe bleeding through mouth and as well as melaena. Acute episodes of bleeding without underlying knowing reason (e.g. Chronic liver disease, malignancy of esophagus) came out usually with massive bleeds. Conservative way of management of bleeding is difficult to take place usually as for active bleeding and hemodynamic instability. Sometimes traditional endoscopic management can't control the bleeding usually for location, fragility of tumor, size of lesion and active bleeds [3-5].

2. Case Presentation

This gentleman, 56 yrs old with having no history of any comorbidities, only occasional dyspepsia, presented with sudden severe episodes of oral bleeds and admitted to a hospital. The bleeding was profuse fresh blood and not stopped by medications and emergency endoscopy was arranged. In scopy, it was difficult for endoscopist to properly visualize (for bleeding) and was fragile to take biopsy as chances of exaggerating bleeding. Irrigation and pressure minimize acuteness and stabilize by other supportive measures [6,7]. Patient then shifted to IGMH & DH for definitive treatment. Repeat elective endoscopy was done and reveals a lesion in fundus area, globular in size, highly vascular, attached with posterior wall of stomach, biopsy attempted but failed for chances of rebleed and planned for elective sleeve gastrectomy. Two days after re endoscopy, at early morning patient again develops massive hematemesis (FIG. 1).

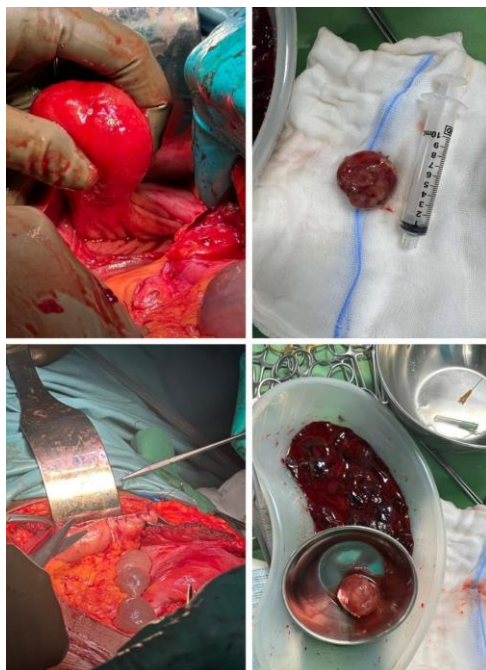


FIG. 1. Image of GIST, Bleeding going through jejunum, clotted blood from Stomach.

Immediate emergency exploration arranged and through upper midline incision reached to stomach and found dilated, edematous wall, loaded with blood and even difficult to introduce NG tube as filled with clotted blood. Duodenum and proximal jejunum was also filled with dark blood visualized through layers of gut. Incision extends up to the left subcostal and bimanual palpation of stomach reveals a globular mobile swelling in posterior wall. Anterior wall gastrotomy in most approaching areas of lesion was made in fundic area. More than 1.5 L of clotted blood was evacuated and identified the lesion. Approximately 8 cm x 4 cm size central umbilicated pedunculated swelling in mucosal area with bleeding was identified. Submucosal resection (SMR) was done. NG tube inserted up to antrum and other area of stomach checked. The anterior wall of stomach repaired and drain tube kept in left paracolic gutter. Patient shifted to Critical care unit and gradually improved after all logistic day to day care. Histopathology reveals Low grade gastrointestinal stromal tumor, Immunohistochemistry reveals spindle cell type arranged in sheets, Mitosis is <5/50 hpf. Tumor cells are positive for CD34, CD117, DOG1 and negative for CK, SMA, Desmin, S100. Patient discharged home on 14th POD and planned for revisit at oncology centre for further care [8].

3. Discussion

Any sort of acute bleeding (Hematemesis/Hematochezia) is usually disastrous and sometimes difficult to manage even in high volume centre. Multidisciplinary acute care services are the prerequisite for stabilization of acute episodes of surgical bleeding [9]. Medical causes of bleeding usually not destabilize the hemodynamics as chronic pathology and some sort of physiological adaptation takes places for known medical illness. Physiological adaptation of vascular changes has no place in acute episodes of bleeding commonly found in Trauma, Angiodysplasia with sudden bleeding of Digestive tract, Dieulafoy's disease, bleeding GIST, and in acute hemorrhoidal bleeding [10,11]. Resuscitation as well as interventions both should have to do simultaneously in acute events of bleeding and critical care, surgery team as well dedicated operation suit facilitated with radio interventions and other facilitative managements should have to be optimal to stabilize acute episodes of bleeding [12,13].

4. Conclusion

Acute care services are pillars of a hospital to ensure clinical services. Acute event management can fasten all platforms of care including Administrative, Clinicians, Nurses, Laboratories, Blood Bank, Pharmacy, Receptionists and other care givers as it is time fashioned care. Surgical emergency of bleeding is the prioritized one as resuscitation and definitive care both are in same momentum as related with survival priority of patient. Immediate resuscitation and focused treatment both simultaneously can preserve smiles of patient and usually complete recovery of dying one is the miracle of combined efforts of health care providers.

5. Ethical Approval

As per international standard or university standard, patient consent has been collected and preserved by the authors.

6. Competing Interests

Authors have declared that no competing interests exist.

REFERENCES

1. Nilsson B, Bümbling P, Meis-Kindblom JM, et al. Gastrointestinal stromal tumors: the incidence, prevalence, clinical course, and prognostication in the imatinib mesylate era--a population-based study in western Sweden. *Cancer*. 2005;103(4):821-9.
2. Govindaraj S, Dias BH, Gautham SL, et al. Jejunal GIST presenting with acute lower gastrointestinal hemorrhage: a review of the literature and management guidelines. *Indian J Surg*. 2015;77(suppl 1):143-6.
3. Heller SJ, Tokar JL, Nguyen MT, et al. Management of bleeding GI tumors. *Gastrointest Endosc*. 2010;72:817-24.
4. Ho MY, Blanke CD. Gastrointestinal stromal tumors: disease and treatment update. *Gastroenterology*. 2011;140(5):1372-6.e2.
5. Koo HJ, Shin JH, Shin S, et al. Efficacy and Clinical Outcomes of Transcatheter Arterial Embolization for Gastrointestinal Bleeding from Gastrointestinal Stromal Tumor. *J Vasc Interv Radiol*. 2015;26(9):1297-304.e1.
6. Corless CL, Fletcher JA, et al. Biology of gastrointestinal stromal tumors. *J Clin Oncol*. 2004;22(18):3813-25.
7. Poveda A, del Muro XG, Lopez-Guerrero JA, et al. GEIS 2013 guidelines for gastrointestinal sarcomas (GIST). *Cancer Chemother Pharmacol*. 2014;74(5):883-98.
8. Rajendra R, Pollack SM, Jones RL. Management of gastrointestinal stromal tumors. *Future Oncol* 2013;9(2):193-206.
9. Hwang JH, Shergill AK, Acosta RD, et al. The role of endoscopy in the management of variceal hemorrhage. *Gastrointest Endosc*. 2014;80(2):221-7.
10. Liu Q, Kong F, Zhou J, et al. Management of hemorrhage in gastrointestinal stromal tumors: a review. *Cancer Manag Res*. 2018;10:735-43.
11. Nishida T, Holmebakk T, Raut CP, et al. Defining tumor rupture in gastrointestinal stromal tumor. *Ann Surg Oncol*. 2019;26(6):1669-75.
12. Liu Q, Li Y, Dong M, et al. Gastrointestinal bleeding is an independent risk factor for poor prognosis in GIST patients. *Biomed Res Int*. 2017;2017:7152406.
13. Wan W, Xiong Z, Zeng X, et al. The prognostic value of gastrointestinal bleeding in gastrointestinal stromal tumor: a propensity score matching analysis. *Cancer Med*. 2019;8(9):4149-58.