Case Report: Life-Saving Emergency Gastrointestinal Endoscopy

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ABSTRACT

Background: Acute upper gastrointestinal bleeding is the most common gastrointestinal emergency, and the patients should undergo urgent endoscopy within 24 hours of presentation, especially when associated with significant comorbidity. Accurate endoscopic diagnosis and effective therapeutic intervention with full endoscopy set up is the key to success for rescuing the patients from life threatening situations.

Case Presentation: A 65-year-old Bangladeshi male, admitted with acute myocardial infarction at Evercare Hospital Dhaka, suddenly started vomiting out of profuse amounts of fresh blood in Cardiac Cath Lab during Coronary intervention and was brought back to CCU. On urgent referral we took a full set of endoscope machines with necessary equipment to CCU. Owing to the possibility of aspiration of blood, a cardiac anesthetist did endotracheal intubation to seal the entry of airway. Endoscopic evaluation revealed a deep mucosal tear at lower esophagus, secondary to reflux. After irrigation with diluted epinephrine, four metallic clips were applied and hemostasis ensured. One more clip was applied to the remaining defect of the tear after 3 days at follow-up endoscopy. The patient fully recovered from GI bleeding and discharged in stable condition.

Conclusion: This case demonstrates the life-saving potential of emergency endoscopic procedures in managing complex upper gastrointestinal bleeding. It also highlighted the importance of advanced skills, creativity and multidisciplinary expertise in overcoming procedural challenges.

Keywords: *Acute upper GI bleeding, Coronary intervention, Endotracheal intubation, Reflux Esophagitis, Endoscopic metallic clipping, Endoscopic hemostasis.*

INTRODUCTION

Upper gastrointestinal (GI) bleeding is defined as hemorrhage originating from the mouth to the ligament of Treitz[1]. It is a common problem, with an annual incidence of approximately 80 to 150 per 100,000 population with an estimated mortality rate of 2% to 10%[2]. Common risk factors include a prior history of upper GI bleeding, anticoagulant therapy, high-dose of NSAIDS use, and advanced age[3]. The most frequent causes are peptic ulcer disease bleeding, reflux esophagitis, gastritis, variceal bleeding, Mallory-Weiss syndrome and cancer.[4] Emergency gastrointestinal bleeding remains one of the most critical and potentially life-threatening conditions in hospital settings. Among all gastroenterology emergencies, upper gastrointestinal bleeding requires immediate medical attention, especially when accompanied by other critical conditions such as cardiac events[5]. At Evercare Hospital Dhaka's Cardiac Catheterization Laboratory, a very serious case of upper gastrointestinal bleeding recently surfaced which exemplifies how timely intervention, advanced technology and coordinated efforts from a skilled multidisciplinary team can save life leading to successful patient outcomes, even in complicated and high-risk scenarios

CASE SUMMARY

A 65-year-old Bangladeshi male patient was admitted to Evercare Hospital Dhaka with acute myocardial infarction under care of a Senior Consultant Cardiologist. During coronary angiography in the Cardiac Catheterization Laboratory, immediately before coronary stenting the patient suddenly started vomiting out profuse amounts of fresh blood and was transferred back to CCU. An urgent gastroenterology referral was made. While preparations for

endoscopy were underway, the patient experienced another episode of massive bleeding. A complete Endoscope unit with necessary accessories were taken to CCU and upper GI endoscopy was started under sedation. Soon after insertion of scope, excessive regurgitation of blood raised concern of aspiration. So, the procedure was briefly halted, scope was withdrawn, and cardiac anesthetist did endotracheal intubation[6] and sealed the entry of airway. Then the scope was reintroduced, and the blood was thoroughly suctioned diluting with normal saline. Upon searching meticulously a deep mucosal tear was found at the lowermost part of oesophagus with blood clot and active bleeding which was reflux related (neither Mallory-Weiss tear[7] nor Cameron ulcer8). After cleaning the tear with diluted Inj. Epinephrine, four metallic clips[9-10] were applied at the mucosal tear to seal it and hemostasis ensured. A representative picture in figure 1 showing the endoscopic appearance of upper GI endoscopy mucosal survey.

During the procedure, the patient's blood pressure dropped to 80/60 mmHg and subsequently intravenous fluid, and inotropes were administered. Hemoglobin level dropped down to 7 gm/dl and 2 units of packed red blood cells (PRBC) were transfused. The patient was successfully extubated the following day.

A follow-up endoscopy after three days showed minimal oozing for which one additional clip was applied at the remaining defect. The patient recovered well with no sign and symptom of any further gastrointestinal bleeding and was later discharged in stable condition. The patient was transfused total three units of PRBC. A CT Scan of whole abdomen with contrast was done to see any intra-abdominal and lower esophageal pathology, but it revealed no abnormality. Later the patient reported to OPD for follow-up and was doing perfectly well.
The patient recovered without further episodes of gastrointestinal bleeding and was discharged in stable condition. At follow-up in the outpatient clinic, he remained asymptomatic and in good health.

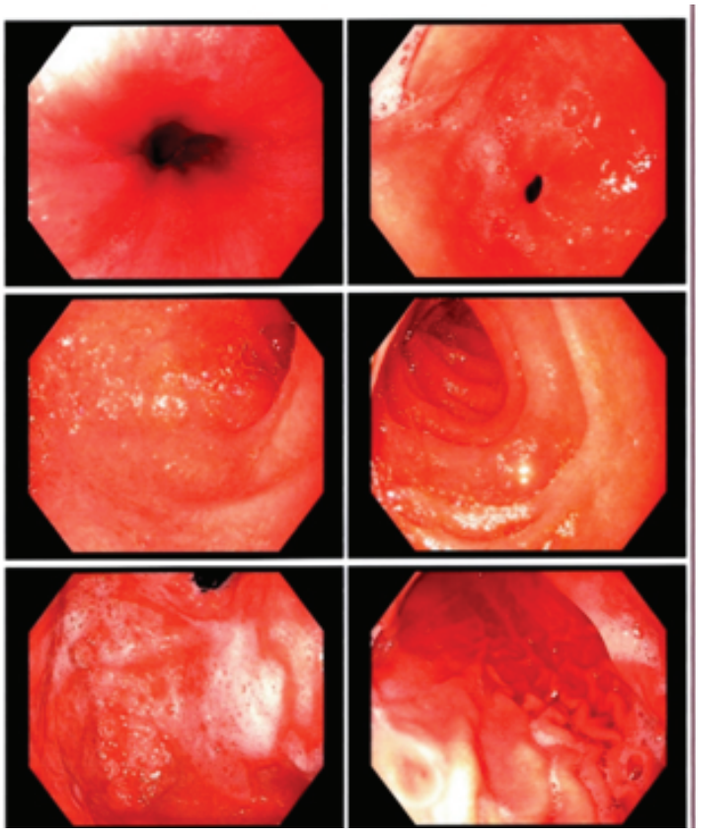

Figure 1: Upper GI Endoscopy mucosal survey

DISCUSSION

This case of bleeding mucosal tear secondary to reflux esophagitis[11] clearly demonstrates the life-saving power of prompt clinical judgement, well-coordinated multidisciplinary teamwork and timely access to advanced endoscopic procedures. Immediate step with full endoscopic set up and accurate and effective endoscopic measures saved the patient from a life threatening situation. Airway protection through immediate endotracheal intubation played a pivotal role in minimizing the risk of aspiration pneumonia, which can complicate massive upper GI bleeding.

Among the different therapeutic approaches used in endoscopy, metallic clips can achieve immediate mechanical hemostasis without causing additional tissue injury. he first reported use of metallic endoclips dates back more than 40 years, by a Japanese group. The mechanism of the clipping action is the compression of vessels and approximating the surrounding tissue, thereby providing secure hemostasis.

At Evercare hospital Dhaka, we take pride in being equipped to handle such complex cases with the same level of precision and sophistication found in world-renowned medical centres. Such advanced emergency care, which remains inaccessible in many parts of the world but is now available locally saving many lives every day.

CONCLUSION

Patients with hemodynamic instability and signs of upper GI bleeding should be offered urgent endoscopy performed within 24 hours of presentation after fluid resuscitation and stabilization. Delays in intervention, i.e. endoscopy, can have catastrophic consequences. Airway protection with endotracheal intubation is crucial to prevent aspiration in high-risk cases. Endoscopic clipping is very effective in sealing the bleeding from mucosal tears. Continuous close monitoring throughout the acute phase of patients is paramount.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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INFORMED CONSENT

The authors took informed written consent from the patient to publish this case report.

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