

MALLORY WEISS SYNDROME : A CLINICAL CASE REPORT

¹Arya B Mohan, ² Dr. Nisha M, ³Dr.Grace N Raju, ⁴ Prof. Dr. Shaiju S Dharan

1. Student, Ezhuthachan College of Pharmaceutical Sciences, Marayamuttom, Thiruvananthapuram.

2. Senior consultant, Pediatrics, Nims Medicity, Thiruvananthapuram..

4. Assistant Professor, Department of Pharmacy Practice, Ezhuthachan College of Pharmaceutical Sciences, Marayamuttom, Thiruvananthapuram.

5. Principal / HOD, Department of Pharmacy Practice, Ezhuthachan College of Pharmaceutical Sciences, Marayamuttom, Thiruvananthapuram.

ABSTRACT

Mallory–Weiss syndrome is a condition characterized by longitudinal mucosal tears at the gastro esophageal junction, leading to upper gastrointestinal bleeding. It is commonly caused by a sudden increase in intra-abdominal pressure due to repeated vomiting, retching, or severe coughing. The most frequent presenting symptom is hematemesis, which may be accompanied by epigastric discomfort or melena. Although this condition is more commonly reported in adults, recent evidence indicates that it is increasingly recognized in children, particularly adolescents with respiratory infections or recurrent vomiting. Studies suggest that Mallory–Weiss syndrome accounts for approximately 3–10% of non-variceal upper gastrointestinal bleeding cases, with most episodes being self-limiting and responding well to conservative management. In pediatric populations, the prognosis is generally excellent, with minimal need for invasive intervention. This report describes a 14-year-old child presenting with hematemesis following episodes of cough and vomiting, with clinical findings suggestive of Mallory–Weiss syndrome.

Keywords: Mallory weiss syndrome, GI bleeding, hematemesis

INTRODUCTION

Mallory–Weiss syndrome is defined as a superficial longitudinal tear in the mucosa of the distal esophagus or proximal stomach, usually occurring at the gastro esophageal junction. It results from a sudden rise in intra-abdominal pressure, commonly triggered by repeated vomiting, retching, coughing, or straining. The classical presentation includes hematemesis, which may be bright red or coffee-ground in appearance, and may occasionally be associated with melena or

upper abdominal pain. In children, this condition is relatively rare but should be considered in cases of upper gastrointestinal bleeding, especially when preceded by vomiting or respiratory symptoms. Recent pediatric studies highlight that although uncommon, Mallory–Weiss syndrome has a benign clinical course and responds well to supportive treatment. Diagnosis is typically confirmed by upper gastrointestinal endoscopy, which allows visualization of the mucosal tear and exclusion of other causes of bleeding. Early recognition is important to prevent unnecessary interventions and to ensure appropriate management.

CASE PRESENTATION

A 14-year-old male child presented with a history of cough for one week, fever for four days, and associated breathing difficulty. The child also complained of throat pain for three days and had episodes of vomiting, which were blood-stained, for the past three days. There was a history of loss of appetite and heartburn for two days. The patient had a past history of recurrent wheeze since childhood and had required hospitalization for similar complaints previously. On examination, the child was active, alert, and afebrile, with a heart rate of 108 beats per minute, respiratory rate of 28 per minute, oxygen saturation of 100%, and blood pressure of 115/58 mmHg. Systemic examination revealed no abnormalities, with normal findings in the cardiovascular, respiratory, and central nervous systems, and the abdomen was soft and non-tender. Laboratory investigations showed a hemoglobin level of 10.9 g/dL, total leukocyte count within normal limits, and platelet count of 3.06 lakhs per cubic millimeter. The erythrocyte sedimentation rate was elevated to 35 mm/hr, and C-reactive protein was elevated at 7.4 mg/L, indicating an inflammatory process. Peripheral smear examination revealed normocytic and normochromic red blood cells. Coagulation parameters and renal function tests were within normal limits. Urine examination was normal. Ultrasound of the abdomen showed mild mesenteric lymphadenitis. Based on the history of repeated vomiting, presence of hematemesis, and absence of other significant causes of gastrointestinal bleeding, a diagnosis of Mallory–Weiss syndrome was made. The child was treated with intravenous antibiotics, proton pump inhibitors, antiemetic, and supportive care. The patient showed clinical improvement with no further episodes of bleeding and was discharged in stable condition on oral medications.

DISCUSSION

Mallory–Weiss syndrome is an important cause of upper gastrointestinal bleeding that results from mucosal tears due to a sudden increase in intra-gastric pressure. In pediatric patients, it is relatively uncommon but should be suspected in the presence of hematemesis following repeated vomiting or severe coughing. In this case, the combination of respiratory infection and repeated vomiting likely contributed to the development of the mucosal tear. The patient remained hemodynamically stable and did not show evidence of significant blood loss, which is consistent with the typical presentation of Mallory–Weiss syndrome. Most pediatric cases are mild and self-limiting, with spontaneous resolution of bleeding. Current evidence supports conservative management as the primary approach, including proton pump inhibitors to promote mucosal healing and antiemetic to prevent further vomiting. Endoscopic intervention is rarely required and is reserved for cases with persistent or severe bleeding. The prognosis in children is excellent, with a low

risk of recurrence when precipitating factors are addressed.

In the case reported by Doğan et al., the patient presented with severe and life-threatening hematemesis, requiring urgent medical intervention. The management involved aggressive resuscitation, including intravenous fluids and blood transfusion, followed by emergency endoscopic evaluation and hemostatic therapy to control active bleeding. This case emphasizes that although Mallory weiss syndrome is often self-limiting, it can occasionally present with massive hemorrhage requiring endoscopic intervention such as injection therapy and thermal coagulation.

In contrast, the present case involved a hemodynamically stable 14-year-old child with mild to moderate hematemesis following episodes of coughing and vomiting associated with respiratory infection. There were no signs of significant blood loss, and hemoglobin levels remained within normal limits. Therefore, the patient was managed conservatively with proton pump inhibitors, antiemetics, intravenous antibiotics, and supportive care, without the need for endoscopic intervention. The absence of recurrent bleeding and the patient's clinical improvement further support the effectiveness of conservative management in stable pediatric cases.

Current evidence suggests that approximately 80–90% of Mallory–Weiss tears resolve spontaneously, particularly in patients who are stable and do not exhibit ongoing bleeding. Proton pump inhibitors play a key role in promoting mucosal healing by reducing gastric acidity, while antiemetics help prevent further episodes of vomiting that could worsen the tear. Endoscopy is generally reserved for patients with persistent or severe bleeding, diagnostic uncertainty, or hemodynamic instability.

The comparison between these two cases highlights that management should be Individualized based on clinical severity. While the case study by Doğan et al. demonstrates the need for rapid and invasive intervention in severe presentations, the current case illustrates that conservative treatment is sufficient in uncomplicated cases, especially in pediatric patients. Early identification of risk factors such as repeated vomiting, coughing, or underlying illness is essential to guide appropriate treatment and prevent complications.

Similar to the findings reported by Smith et al., the patient developed hematemesis following repeated forceful vomiting after alcohol intake, and endoscopy revealed a linear mucosal tear at the gastroesophageal junction. However, unlike the severe bleeding described by Johnson et al., the present patient remained hemodynamically stable and improved with conservative management alone without requiring endoscopic hemostatic procedures or blood transfusion.

A case described by Lee et al. reported mild hematemesis associated with hyperemesis gravidarum in pregnancy, which resolved rapidly with supportive care. Similarly, the current patient also showed good response to intravenous fluids and proton pump inhibitors. In contrast, Kumar et al. documented an elderly patient with recurrent gastritis and multiple mucosal tears who required prolonged hospitalization and endoscopic intervention. Compared with these studies, the present case had a milder clinical course, shorter hospital stay, and favorable outcome. These comparisons support the observation that early diagnosis and prompt supportive treatment significantly improve prognosis in Mallory–Weiss Syndrome.

Overall, this case reinforces that Mallory–Weiss syndrome in children typically has a benign course with excellent prognosis, and most patients recover with supportive care alone. However, clinicians must remain vigilant for signs of

severe bleeding, where timely endoscopic management can be life-saving.

CONCLUSION

Mallory–Weiss syndrome, although rare in children, should be considered in any pediatric patient presenting with hematemesis following episodes of vomiting or coughing. Early recognition and appropriate conservative management lead to favorable outcomes in most cases. This case highlights the importance of identifying underlying triggers such as respiratory infections and emphasizes that supportive treatment is usually sufficient for recovery. Prompt diagnosis and management can prevent complications and avoid unnecessary invasive procedures.

REFERENCES:

1. Hu Z, Liu D. Mallory-Weiss Syndrome. *New England Journal of Medicine*. 2024;390(20):e49.
2. Mertens A, Essing T, Roderburg C, et al. A Systematic Analysis of Incidence, Therapeutic Strategies, and In-hospital Mortality of Mallory-Weiss Syndrome. *Journal of Clinical Gastroenterology*. 2024;58(7):640–649.
3. Nagpal P, Dane B, Aghayev A, et al. ACR Appropriateness Criteria® Nonvariceal Upper Gastrointestinal Bleeding: 2024 Update. *Journal of the American College of Radiology*. 2024.
4. Barkun AN, Laine L, Leontiadis GI, et al. Canadian/International Guidelines for Nonvariceal Upper GI Bleeding. *Gastroenterology*. 2025.
5. George FK, Mathew DM, Mathew A. Mallory-Weiss Syndrome: A Case Report on Diagnosis and Management. *International Journal of Research and Review*. 2024;11(4):274–277.



Copyright & License:

© Authors retain the copyright of this article. This work is published under the Creative Commons Attribution 4.0 International License (CC BY 4.0), permitting unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.