International Journal of Advanced Medical Sciences and Technology (IJAMST)
ISSN: 2582-7596 (Online), Volume-6 Issue-1, December 2025

Case Report: Intestinal Obstruction in a Patient on Antiplatelet Therapy

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Abstract: ***Background Antiplatelet therapy is commonly prescribed for various cardiovascular conditions, but it represents a unique challenge in dealing with surgical emergencies, such as intestinal obstruction. Our case is a 47-year-old patient who had a history of CABG and was on maintenance dual antiplatelet therapy, "Aspirin and Clopidogrel", attended the ER with a short history of acute abdominal pain associated with vomiting and distension. Clinical findings and imaging studies revealed features of intestinal obstruction.***

Keywords: Antiplatelet Therapy, Surgical Emergencies, Intestinal Obstruction

Nomenclature:
IHD: Ischemic Heart Disease

I. INTRODUCTION

Antiplatelet therapy is commonly used to prevent thromboembolism, especially in patients with cardiac disease. Since these medications significantly lower the risk of myocardial ischemia, they may be prescribed for long-term duration [1], which can be challenging in patients undergoing urgent surgical intervention. Intestinal Obstruction is a serious condition that may arise from various causes, including adhesions, hernia, and malignancy. In patients on antiplatelet agents, the management of intestinal obstruction may be complicated by an increased risk of bleeding, which may require careful consideration of surgical intervention [2].

This case report describes a patient on antiplatelet therapy who presented with intestinal obstruction, pointing out the challenges in diagnosis and management. By considering this case in light of the current literature, we aim to highlight the importance of recognising the interplay between antiplatelet therapy and gastrointestinal complications, ultimately contributing to improved clinical outcomes in similar patients.

Manuscript received on 05 December 2025 | Revised Manuscript received on 09 December 2025 | Manuscript Accepted on 15 December 2025 | Manuscript published on 30 December 2025.
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A. Case Presentation

Given the risk of bleeding complications, a multidisciplinary approach was employed. Antiplatelet was temporarily withheld, and the patient underwent an emergency laparotomy. Intraoperative findings confirmed a small bowel closed-loop obstruction due to a fibrous band, and there was an ischemic segment [3,4]. Pictures (2,3,4). Resection and primary side-to-side anastomosis were performed using an Endo GIA 60 mm. Postoperative management included careful monitoring and resumption of antiplatelet therapy on day one (aspirin 81 mg) per cardiologist's advice [5].

B. Case Presentation

A 47-year-old male who is a known case of ischemic heart disease (IHD) and (CABG) performed four years ago, presented to the Emergency Room complaining of acute abdominal pain, distension, and vomiting. His medication history includes Aspirin and Clopidogrel for CABG. On examination, the patient was vitally stable, with a distended abdomen that was diffusely tender and without bowel sounds.

C. Imaging Studies

i. Abdominal US Shows:

Suprapubic fat oedema with distended bowel lobes, mostly the ileum, with fluid content and minimal intraperitoneal free fluid seen, is suspected of bowel obstruction.

ii. Non-contrast CT Abdomen Shows:

Closed loop obstruction (1).

Clinical and radiological findings confirmed the diagnosis of intestinal obstruction.

II. MANAGEMENT

A patient with intestinal obstruction on antiplatelet therapy requires a multidisciplinary approach, careful assessment, and individualised management. Coordination among the general surgery, cardiology, haematology, ICU, and anaesthesia teams was established, and antiplatelet therapy was temporarily discontinued. After the Initial assessment, fluid resuscitation was started, a nasogastric tube was placed for decompression of the gastrointestinal tract, and vital signs were monitored closely. An exploratory laparotomy was done and revealed a fibrous band in the small bowel, causing a closed-loop obstruction. After relieving the obstruction, about 20 cm of a non-viable bowel segment was found, "picture (4)". Primary side-to-side anastomosis was performed with an Endo GIA 60 mm.

III. POSTOPERATIVE PERIOD

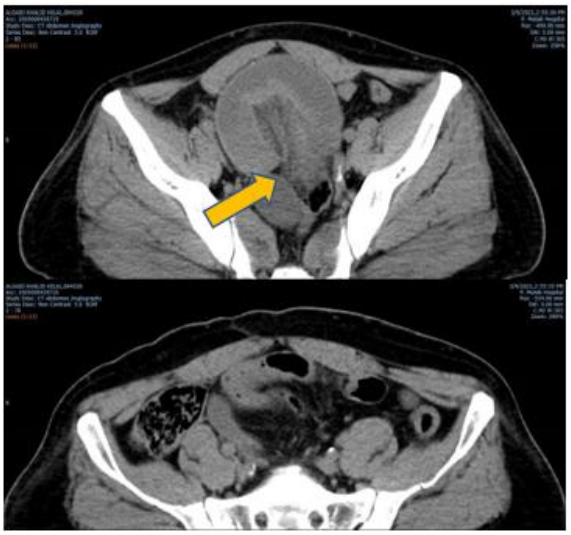
Following the operation, the patient was shifted to the ICU for close monitoring and later transferred to the surgical ward. On day 3 postoperatively, the patient developed melena and a drop in haemoglobin [6]. An emergency upper and lower GIT endoscopy was done to look for the source of bleeding [7,8]. No source of bleeding was identified in both upper and lower gastrointestinal endoscopies. The risks and benefits of re-operative surgery were weighed against those of continued conservative management. A trial of conservative management for 48 hours was initiated, and blood transfusions of 2 bags and tranexamic acid, starting at 1 gram and increasing to a continuous dose of 500 mg, were initiated [9,10]. After 24 hours, the patient's condition improved, and melena resolved. Four days after clinical improvement, antiplatelet therapy was resumed gradually.

IV. DISCUSSION

This case demonstrates an intestinal obstruction in a patient receiving dual antiplatelet therapy, a standard regimen for preventing ischemic events in high-risk individuals. Managing elective surgical interventions under dual antiplatelet therapy is associated with lower mortality rates; however, acute conditions in this context present a unique challenge [11]. The primary dilemma was the decision to perform an exploratory laparotomy [12,13]. While clinical and imaging findings strongly suggested intestinal obstruction with potential complications like

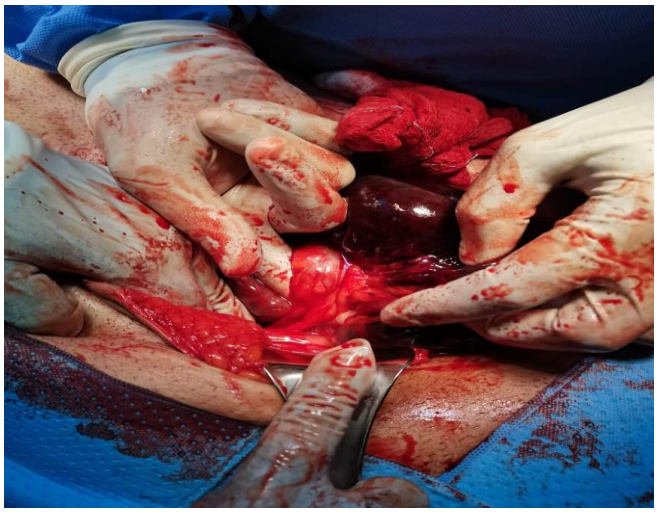
strangulation, perforation, and peritonitis, the risk of critical bleeding in a patient on dual antiplatelet therapy was a significant challenge. Further complicating the condition was the development of melena and a decreased haemoglobin level, indicating active bleeding. Given the high risk of mortality in the event of reoperation, we considered conservative management. This approach included blood transfusions, close vital sign monitoring, and tranexamic acid administration with a planned surgical intervention if bleeding did not improve. The patient's clinical status improved within 24 hours, and the melena resolved, supporting the decision to pursue conservative management.

A. Images

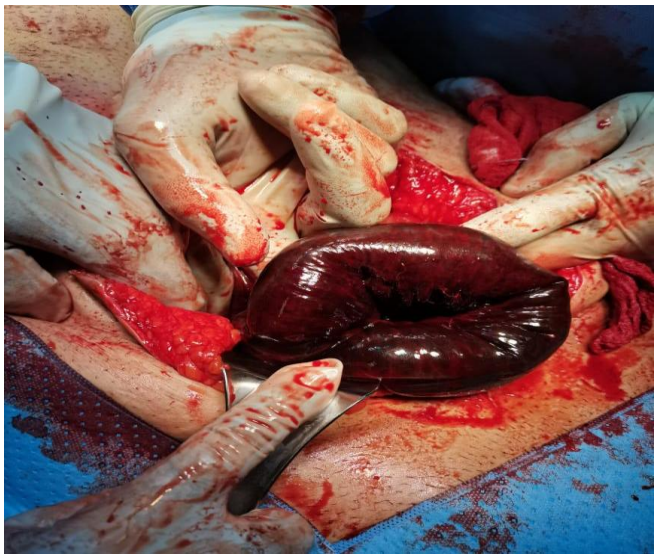


Picture 1: Non-Contrast CT Abdomen Shows a Closed-Loop Obstruction "Arrow"

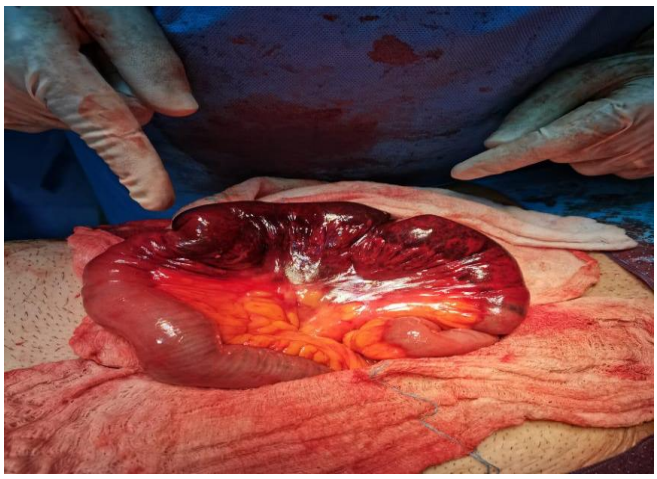
B. Intraoperative Pictures



Picture 2: Fibrous Band. "arrow"



Picture 3: Ischemic Bowel Loop



Picture 4: Non-Viable Small Bowel After Release

V. OUTCOME

The patient recovered without significant complications, but 3 days after surgery, he developed melena and dropped haemoglobin. Upper and lower GI

endoscopy was performed and revealed no identifiable source of bleeding. Conservative management versus exploration was a big challenge in this patient; the decision was made to continue conservative management. After 24 hours, the patient recovered, and the melena resolved.

VI. CONCLUSION

This case emphasizes the need to demonstrate awareness and tailored strategies when addressing intestinal obstruction in patients on antiplatelet therapy, weighing the risks of bleeding against the benefits of surgical intervention.

DECLARATION STATEMENT

As the article's author, I must verify the accuracy of the following information after aggregating input from all authors.

- **Conflicts of Interest/ Competing Interests:** Based on my understanding, this article has no conflicts of interest.
- **Funding Support:** This article has not been funded by any organizations or agencies. This independence ensures that the research is conducted with objectivity and without any external influence.
- **Ethical Approval and Consent to Participate:** The content of this article does not necessitate ethical approval or consent to participate with supporting documentation.
- **Data Access Statement and Material Availability:** The adequate resources of this article are publicly accessible.
- **Author's Contributions:** The authorship of this article is contributed equally to all participating individuals.

REFERENCES

1. Sandner S, Redfors B, Gaudino M. Antiplatelet therapy around CABG: the latest evidence. Curr Opin Cardiol. 2023 Nov 1;38(6):484-489. Epub 2023 Sep 21. PMID: 37751394; PMCID: PMC10552805. DOI: https://doi.org/10.1097/HCO.0000000000001078
2. Kim SH, Han K, Kang G, Lee SW, Park CM, Cho J, Choi JW, Park SJ, Kang M, Kim TJ, Hong SH, Kwon YC, Park J, Shin D. Risk of Postoperative Gastrointestinal Bleeding and Its Associated Factors: A Nationwide Population-Based Study in Korea. J Pers Med. 2021 Nov 18;11(11):1222. PMID: 34834574; PMCID: PMC8621831. DOI: https://doi.org/10.3390/jpm11111222
3. Small Bowel Obstruction, Bower, Katie Love et al, Surgical Clinics, Volume 98, Issue 5, 945 – 971,2018. DOI: https://doi.org/10.1016/j.suc.2018.05.007
4. Edwards MK, Kuppler CS, Croft CA, Eason-Bates HM. Adhesive Closed-loop Small Bowel Obstruction. Clin Pract Cases Emerg Med. 2018 Jan 9;2(1):31-34. PMID: 29849259; PMCID: PMC5965135. DOI: https://doi.org/10.5811/cpcem.2017.10.35927
5. Kang DY, Lee SH, Lee SW, et al. Aspirin Monotherapy Versus No Antiplatelet Therapy in Stable Patients With Coronary Stents Undergoing Low- to Intermediate-Risk Noncardiac Surgery. J Am Coll Cardiol 2024; 84:2380-2389. DOI: https://doi.org/10.1016/j.jacc.2024.08.024
6. Hébert J, Eltonsy S, Gaudet J, Jose C. Incidence and risk factors for anastomotic bleeding in lower gastrointestinal surgery. BMC Res Notes. 2019 Jul 3;12(1):378. PMID: 31269980; PMCID: PMC6607592. DOI: https://doi.org/10.1186/s13104-019-4403-0
7. Ryou SH, Bang KB. Endoscopic management of postoperative bleeding. Clin Endosc. 2023;56(6):706-715. DOI: https://doi.org/10.5946/ce.2023.028
8. Jung K, Moon W. Role of endoscopy in acute gastrointestinal bleeding in real clinical practice: An evidence-based review. World J Gastrointest Endosc. 2019 Feb 16;11(2):68-83. PMID: 30788026; PMCID: PMC6379746. DOI: https://doi.org/10.4253/wjge.v11.i2.68
9. Po-Lin Lee, Kai-Suan Yang, Hong-Wei Tsai, Sen-Kuang Hou, Yi-No Kang, Chun-Chao Chang, Tranexamic acid for gastrointestinal Bleeding: A systematic review with Meta-analysis of randomized clinical trials, The American Journal of Emergency Medicine, Volume 45,2021, Pages 269-279, ISSN 0735-6757. DOI: https://doi.org/10.1016/j.ajem.2020.08.062
10. Klaassen RA, Selles CA, van den Berg JW, Poelman MM, van der Harst E., Tranexamic acid therapy for Postoperative bleeding after bariatric surgery. BMC Obes. 2018 Dec 3;5:36. PMID: 30524741; PMCID: PMC6276262. DOI: https://doi.org/10.1186/s40608-018-0213-5
11. Banerjee, S., Angiolillo, D., Boden, W. et al. Use of Antiplatelet Therapy/DAPT for Post-PCI Patients Undergoing Noncardiac Surgery. JACC. 2017 Apr, 69 (14) 1861–1870. DOI: https://doi.org/10.1016/j.jacc.2017.02.012
12. Madyarov V, Kuzikeev M, Malgazhdarov M, Abzalbek Y, Zhapbarkulova G. Causes of adverse outcomes in acute intestinal obstruction. Journal of Complementary and Integrative Medicine. 2023;20(4): 788-796. DOI: https://doi.org/10.1515/jcim-2023-0189
13. Ali, A., Mohamed, Y., AN, M., & Güler, İ. (2024). Etiology, Clinical Manifestations, and Imaging Evaluation of Intestinal Obstruction in Adults at Tertiary Hospital in Mogadishu, Somalia: A Retrospective Study. International Journal of General Medicine, 17(), 5563-5572. DOI: https://doi.org/10.2147/ijgm.s512827

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Dr. Mohammed Elamin Elsirag, MBBS. MR CSE d. FACS, highly skilled General Surgeon with extensive experience across Sudan, Saudi Arabia, the United Arab Emirates, Belgium, and the United Kingdom. He obtained his MBBS from the University of Bahr El Ghazal in 2002, followed by membership of the Royal College of Surgeons of Edinburgh (MRCSEd) in 2016. Dr. Mohammed has completed multiple advanced surgical and professional development courses, including laparoscopic and upper GI training at the Cuschieri Skills Centre in Dundee, UK, minimal invasive proctology, hernia surgery, and a 3-month Bariatric Surgery Fellowship at AZ Sint Jan Hospital, Bruges, Belgium (2022). He was awarded Fellowship of the American College of Surgeons (FACS) in 2022, reflecting his commitment to the highest global standards of surgical practice. In addition to clinical excellence, he has pursued specialized training in project management, health data analysis, teaching and training (TOT), and essential life-support certifications including ATLS (multiple cycles), ACLS, FCCS, and PLS. Dr. Mohammed is registered with several central international medical councils, including the Sudan Medical Council, Saudi Commission for Health Specialties, Irish Medical Council, and is currently processing registration with the General Medical Council (UK). He is also an active member of the European Association of Endoscopic Surgery (EAES)

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