Publisher
MEDRESEARCH
www.medresearch.in

Surgical Review - International Journal of Surgery Trauma and Orthopedics

2025 Volume 11 Number 1 Jan-Dec

E-ISSN:2455-5436
P-ISSN:2456-9518
RNI:MPENG/2017/70870

Case Report

Blunt Abdominal Trauma

Silent but Serious: A Case of Colonic Perforation Masquerading as a Persistent Retrorectus Abscess Post Blunt Abdominal Trauma

Saurabh A[1], Sivastava NK[2], Gond AK[3*], Kushwaha P[4], Kumar S[5]

DOI:https://doi.org/10.17511/ijoso.2025.i01.01

[1] Amritanshu Saurabh, Assistant Professor, General Surgery, All India Institute of Medical Sciences, Raebareli, UP, India.

[2] Niraj Kumar Sivastava, Additional Professor, General Surgery, All India Institute of Medical Sciences, Raebareli, UP, India.

[3*] Ajay Kumar Gond, Junior Resident, General Surgery, All India Institute of Medical Sciences, Raebareli, UP, India.

[4] Pranabh Kushwaha, Associate Professor, General Surgery, All India Institute of Medical Sciences, Raebareli, UP, India.

[5] Shirish Kumar, Assistant Professor, General Surgery, All India Institute of Medical Sciences, Raebareli, UP, India.

A 21-year-old male presented with fever and abdominal pain 10 days after a minor fall. Imaging revealed a pelvic abscess and possible hollow viscus perforation. Laparoscopy identified adhesion of omentum and sigmoid colon with abdominal wall covering a defect of 2x2 with 600 ml of pus collection in the extra peritoneal retro rectus space necessitating laparotomy. No bowel injury was identified, and the patient initially improved. However, persistent purulent discharge led to a repeat CECT revealing a loculated abscess with air tracking to the skin. Re-exploration revealed sealed colonic perforation. Managed conservatively for a low-output enterocutaneous fistula, showed significant improvement.

Keywords: Blunt abdominal trauma, retrorectus abscess, hollow viscus perforation, delayed complication, colonic perforation, enterocutaneous fistula

Corresponding Author

Ajay Kumar Gond, Junior Resident, General Surgery, All India Institute of Medical Sciences, Raebareli, UP, India.
Email: ajaykumargond48@gmail.com

How to Cite this Article

Saurabh A, Sivastava NK, Gond AK, Kushwaha P, Kumar S, Silent but Serious: A Case of Colonic Perforation Masquerading as a Persistent Retrorectus Abscess Post Blunt Abdominal Trauma. Surgical Rev Int J Surg Trauma Orthoped. 2025;11(1):1-4.
Available From
https://surgical.medresearch.in/index.php/ijoso/article/view/283

To Browse

Manuscript Received	Review Round 1	Review Round 2	Review Round 3	Accepted
2025-05-19	2025-05-27	2025-06-04	2025-06-12	2025-06-20

Conflict of Interest	Funding	Ethical Approval	Plagiarism X-checker	Note
None	Nil	Yes	10.36	

Introduction

Trauma is a leading cause of mortality, with sepsis being the primary reason for late mortality after three days of trauma. While intra-abdominal abscesses are well documented in penetrating trauma, 8% of all infections but their association with blunt trauma is less studied [1]. Hollow viscus injuries after blunt abdominal trauma occur in 4-15% cases [2], with small bowel injuries in less than 1% [3]. Delayed presentation of small bowel perforations is very rare [4]. Diagnosing hollow viscus injury is challenging due to its rarity [5], with jejunum and ileum being most susceptible, while colonic injuries are less frequent due to positioning and absence of redundancy, which restricts the creation of closed loops [6].

The absence of reliable diagnostic methods for colonic injuries can delay treatment, increasing morbidity [7]. In some cases, a trivial injury can provide a clinical clue, as small intestinal perforations have been documented after minor falls or low-impact abdominal trauma [8] [9] [10]. Extra peritoneal abscess following bowel perforation is rare, often diagnosed late due to a slow inflammatory response [11] [12] [13]. Following a ground-level fall, isolated colonic perforation with a sealed off extrapertoneal abscess is an exceptionally rare occurrence. As far as we are aware, this is the only scenario of an isolated colonic perforation that has manifested as a persistent retrorectus abscess following a ground-level fall.

Case Report

A 21-year-old male presented with new-onset abdominal pain for ten days. The pain was insidious, continuous, dull aching in the left lower quadrant, progressive without radiation or aggravating factors. He also experienced progressive abdominal distension and intermittent high-grade fever relieved by medication. There were no gastrointestinal symptoms, jaundice, weight loss, or appetite changes. His medical history was unremarkable, except for a fall 15 days prior, following a transient loss of consciousness in the sun. He had mild head swelling that resolved without medical attention.

On contrast-enhanced CT scan extra peritoneal air and free fluid in the pelvis, anterior abdominal wall, and left paracolic gutter,

Suggesting a pelvic abscess or hollow viscus perforation. Examination showed significant tenderness and mild induration in the left lower quadrant.

A diagnostic laparoscopy revealed dense adhesions between the omentum and sigmoid colon along the left abdominal wall(fig .1). Adhesiolysis revealed a 2×2 cm abdominal wall defect with a large extraperitoneal retrorectus pus collection (fig.3), necessitating conversion to an exploratory laparotomy via a midline incision.

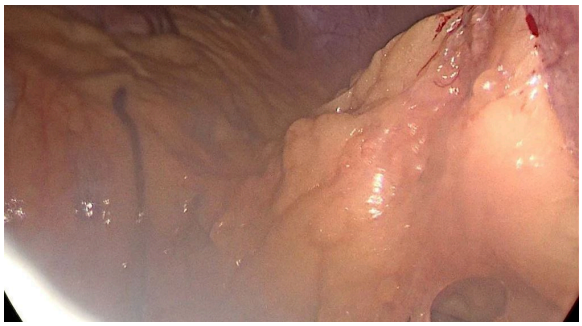

Figure 1: Omentum and sigmoid colon densely adhered to the abdominal wall.

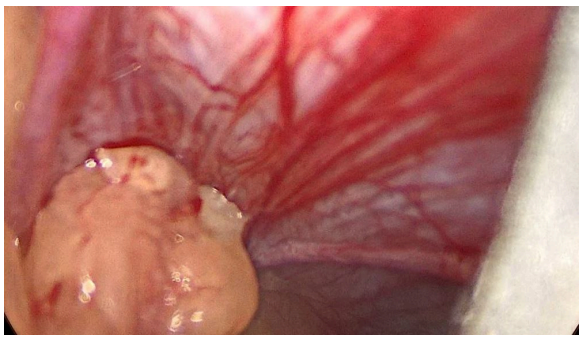

Figure 2: Omentum sealing the abdominal wall defect.

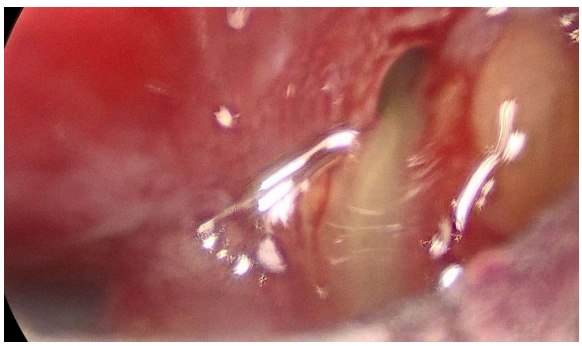

Figure 3: Adhesiolysis of omentum revealing a defect of size 2cm x 2cm. Retrorectus preperitoneal abscess is seen dribbling into the abdomen.

During surgery, 500-600 ml of purulent fluid was drained from the retro-rectus space, followed by a saline wash. On exploration, the bowel was found to be healthy, and two drains were placed, one in the pelvis and another in pre peritoneal abscess cavity. Drains were removed on postoperative day 5 due to decreasing output, and was discharged in stable condition. The patient again presented three months later with a complaint of purulent discharge from the drain site. Repeat CECT showed a loculated hypodense lesion in the left lower abdominal wall at the previous abscess site, with air foci extending from the left lumbar region to the infraumbilical area, suggesting a sinus tract with intraperitoneal connection.

Figure 4: Post op healing sinus tract excision wound with healing enteroctaneous fistula in the wound.

After obtaining consent, patient underwent surgical exploration and sinus tract excision. The tract originated from left lumbar drain site, extending toward lower midline wound, approximately 5 cm below umbilicus. The tract extended into retro-rectus plane, reaching pubic symphysis and left iliac fossa. Unhealthy granulation tissue along tract was excised, and bowel inspection revealed no obvious abnormality. On postoperative day 14, fecal discharge from wound indicated an enterocutaneous fistula probably re-exploration might have revealed a previously missed colonic perforation, likely sealed during the initial injury.

The patient was managed conservatively for the low-output enterocutaneous fistula. Conservative management with dressings and IV antibiotics. This case highlights the complexities of postoperative complications and the importance of thorough exploration, multidisciplinary care, and close monitoring to ensure successful patient recovery.

Discussion

Small bowel perforation due to blunt abdominal trauma is uncommon, with minor perforations often becoming evident only later [14]. In this case, patient's abdominal pain following a syncope-related fall did not initially suggest intestinal perforation. Abdominal organs lack bony protection, increasing their susceptibility to compression-deceleration injuries. Colonic injury is rare following blunt abdominal trauma. Ricciardi et al. (2004) found that colon injuries resulting from blunt abdominal trauma occur at a low incidence rate of 1.1% [15]. Typically, colon injuries from blunt trauma are accompanied by damage to other intra-abdominal organs, with small intestine, spleen, liver, and pancreas being most frequently affected [7]. Treatment options for colon injuries from blunt abdominal trauma include primary closure, generally appropriate for injuries involving less than 50% of colonic wall. In cases where tissue damage affects more than 50% of wall, or when there is substantial mesenteric injury compromising blood supply, resection with anastomosis is preferred [7]. Despite potential for serious complications, our patient's case did not result in any post-operative morbidity or mortality. This positive outcome highlights importance of timely intervention, careful surgical technique, and vigilant post-operative care. Successful prevention of complications can often be attributed to meticulous surgical planning, skilled execution, and proactive post-operative monitoring. Each patient's unique condition must be assessed to minimise risks & ensure recovery. Acute abdominal pain after minor trauma requires thorough evaluation to rule out bowel perforation. Surgical teams must be aware of potential delayed complications, such as sealed retrorectus space abscess from colonic perforation, as reported in our case.

Conclusion

Acute abdominal pain following even trivial trauma warrants meticulous evaluation to exclude bowel perforation.

While stable patients with mesenteric tears or hematomas may be managed conservatively, clinicians must remain alert to delayed complications, including concealed abscess formation from occult colonic injury. Although mesenteric and colonic injuries are rare, they pose significant risks. A sound understanding of injury mechanisms, supported by imaging-based assessment and vigilant monitoring, is essential for early recognition and optimal management.

References

1. Goins WA et al. Intra-abdominal abscess after blunt abdominal trauma. Ann Surg. 1990 Jul;212(1):60-5. *[Crossref][PubMed][Google Scholar]*

2. Bruscagin V1 et al. Blunt gastric injury. A multicentre experience. Injury. *2001;32(10):761-4 [Crossref][PubMed][Google Scholar]*

3. Fakhry SM, et al. EAST Multi-Institutional Hollow Viscus Injury Research Group. Current diagnostic approaches lack sensitivity in the diagnosis of perforated blunt small bowel injury: analysis from 275,557 trauma admissions from the EAST multi-institutional HVI trial. J Trauma. *Acute Care Surg 2003 Feb;54(2):295-306 [Crossref][PubMed] [Google Scholar]*

4. Hamidian Jahromi A, et al. Delayed small bowel perforation following blunt abdominal trauma: A case report and review of the literature. Asian J Surg. 2016 Apr;39(2):109-12. *[Crossref][PubMed] [Google Scholar]*

5. Fakhry SM, Brownstein M, Watts DD,Baker CC, Oller D. Relatively short diagnostic delays (<8 hours) produce morbidity and mortality in blunt small bowel injury: an analysis of time tooperative intervention in 198 patients From a multicenter experience. J Trauma. 2000;48(3):408-14. *[Crossref][PubMed][Google Scholar]*

6. Jha NK, et al. Characteristics of Hollow Viscus Injury following Blunt Abdominal Trauma; a Single Centre Experience from Eastern India. Bull Emerg Trauma. 2014;2(4):156-160. *[Crossref][PubMed] [Google Scholar]*

7. Ertugrul et al. Delayed presentation of a sigmoid colon injury following blunt abdominal trauma: a case report. Journal of Medical Case Reports 2012 6:247. . *[Crossref][PubMed][Google Scholar]*

8. Chophel T et al. Jejunal perforation after a trivial trauma: A case report. SAGE Open Med Case Rep. 2022 Jul 7;10:2050313X221110032. *[Crossref] [PubMed][Google Scholar]*

9. Okello M, Batte C and Buwembo W. Jejunal transection following trivial trauma: case report and review of literature. IntJ Surg Case Rep 2016; 27: 41–43. . *[Crossref][PubMed][Google Scholar]*

10. Sandiford NA, Sutcliffe RP and Khawaja HT. Jejunal tran-section after blunt abdominal trauma: a report of two cases. Emerg Med J 2006; 23(10): e55. . *[Crossref][PubMed][Google Scholar]*

11. Tirkes T, Sandrasegaran K, Patel AA, et al. Peritoneal and retroperitoneal anatomy and its relevance for cross-sectional imaging. Radiographics. 2012;32(2): 437-451. *[Crossref] [PubMed][Google Scholar]*

12. Gore RM, Balfe DM, Aizenstein RI, Silverman PM. The great escape: interfascial decompression planes of the retroperitoneum. American Journal of Roentgenology. 2000; 175(2):363-370. *[Crossref] [PubMed][Google Scholar]*

13. Meyers M. The Extraperitoneal Spaces: Normal and Physiologic Anatomy. In: Dynamic Radiology of the Abdomen: Normal and Pathologic Anatomy, 6th Edition. Springer-Verlag New York. *2005 [Crossref] [PubMed][Google Scholar]*

14. Matsui Y, Oikawa S, Sorimachi K. et al. Association of impact velocity with risks of serious injuries and fatalities to pedes- trians in commercial truck-pedestrian accidents. Stapp Car Crash J 2016; 60: 165–182. *[Crossref][PubMed][Google Scholar]*

15. Ricciardi R, Paterson CA, Islam S, Sweeney WB, Baker SP. Counihan TC: Independent predictors of morbidity and mortality in blunt colon trauma. Am Surg 2004. 70:75–79. *[Crossref][PubMed][Google Scholar]*