

Case	(445) Mesenteric injury following blunt abdominal trauma. role of multidetector ct.
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CASE PRESENTATION

89 year old woman involved in road traffic accident. Abdominal pain. CT findings: - Active extravasation of contrast media from mesenteric vessels.

- Mesenteric infiltration: haziness and fat stranding.
- Mesenteric hematoma, haemoperitoneum.
- Accumulation ('pooling') of contrast on multiphase imaging. -Intrajejunal hematoma.
- Liver laceration.

DISCUSSION

The bowel and mesentery are injured in ~2.5% (range 0.3-5%) of blunt force abdominal trauma

Gunshot wounds (~75%) and stabbings (~20%) are the leading causes of bowel and mesenteric injury from penetrating trauma. Motor vehicle collisions are the most common cause of blunt trauma followed by falls, assaults and sports-related trauma.

Mesenteric injuries can include:

- active bleeding from a laceration
- mesenteric hematoma

Diagnosis

- Definitive signs:
 - Active extravasation of contrast media indicative of active bleeding and a significant mesenteric injury. The sign has a specificity of 100% for the diagnosis of significant mesenteric injuries, but it was seen in only 17% of patient with bowel and mesenteric injuries.
 - Intermesenteric free fluid, often forming triangles
 - Beading and termination of mesenteric vessels
 - Abrupt termination of the mesenteric vessels
 - Accumulation ('pooling') of contrast on multiphase imaging
- suggestive signs

- Mesenteric infiltration: haziness and fat stranding
- Mesenteric hematoma
- Bowel wall thickening

Treatment and prognosis

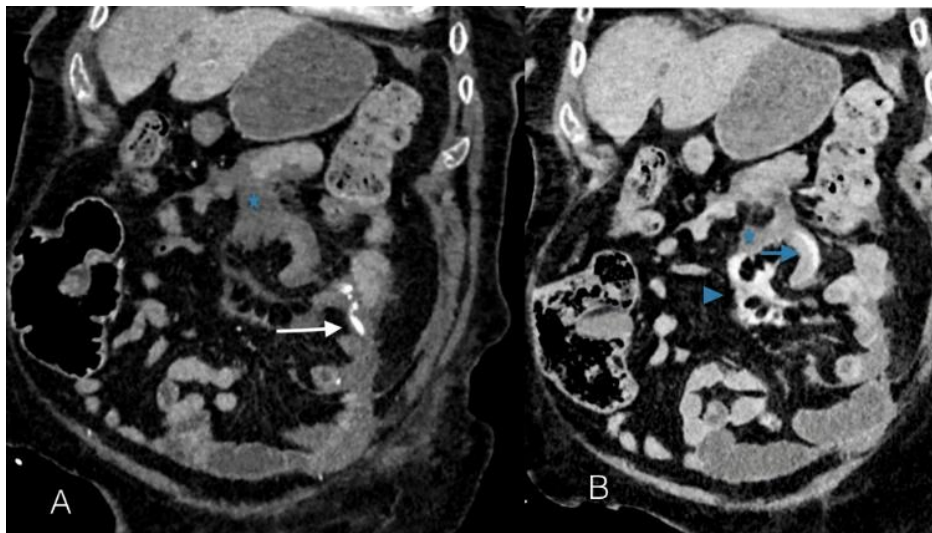
Even with increasing non-operative management of traumatic abdominal organs (e.g.liver or spleen laceration), traumatic bowel and mesenteric injuries such as perforation or active mesenteric bleeding still require operative management

CONCLUSION

CT is sensitive in the identification of bowel and mesenteric injury after blunt trauma providing a wide spectrum of findings.

Persistent, active extravasation of intravenous contrast medium from the mesenteric vessels, in isolation or associated with further injuries, requires immediate exploration and repair.

Close clinical observation, monitoring, and surgical expertise are mandatory for appropriate management.



Arterial (A) and delayed (B) phase CT show active extravasation of contrast media from mesenteric vessels (white arrow), mesenteric hematoma (star), pooling of contrast on delayed phase (arrowhead) and intrajejunal hematoma (blue arrow)

BIBLIOGRAPHY

- Nicole Brofman, MD Mostafa Atri, MD, Dip Epid ? John M. Hanson, MBBCh Evaluation of Bowel and Mesenteric Blunt Trauma with Multidetector CT, RadioGraphics 2006.1119-1131

- Jeffrey M. Brody, MD • Danielle B. Leighton, MD • Brian L. Murphy, MD •CT of Blunt Trauma Bowel and Mesenteric Injury: Typical Findings and Pitfalls in Diagnosis1
RadioGraphics 2000; 20:1525–1536,