



## Diagnosis and Management of Blunt and Penetrating Bowel Injuries

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Hollow viscera and mesentery injuries are relatively uncommon, both in penetrating trauma (17% of cases) and in blunt trauma (1% of cases). Due to the variety of clinical presentations, diagnostic uncertainties can lead to serious consequences in cases of missed lesions with delayed treatment.

Due to the low sensitivity of the physical examination in some conditions, FAST can help, in a variable way, in the diagnosis of free fluid, increasing the sensitivity when the test is performed serially, in experienced hands, whose detection of free air can increase the accuracy of the method for this diagnosis.

The role of CT in the management of penetrating trauma is arguably more controversial when compared to blunt trauma. CT has a sensitivity of 88% and a specificity of 72% for detecting bowel injury in penetrating trauma. The radiological signs of penetrating injuries are similar to those of blunt trauma: free fluid is the most common finding, mesenteric blurring, contrast extravasation (in case of associated vascular injuries) and free air (more common and earlier in penetrating injuries).

Laparoscopy, less invasive than laparotomy in both diagnostic and therapeutic scenarios, has positive aspects in several pre and postoperative outcomes. Arguments against the minimally invasive tool are based on operative time, technical difficulty and greater risk of missed injuries in less experienced hands. However, literature reviews have already demonstrated the benefit in hemodynamically stable patients when performed by experienced

surgeons without a significant increase in previously criticized outcomes.

The indication for non-operative treatment must comply with a careful selection, in addition to normal hemodynamic conditions, absence of peritonitis and absence of associated injury that requires surgical treatment. The qSOFA score has demonstrated increased sensitivity for sepsis or septic shock and may play a crucial role during the observation of patients at increased risk of late-onset bowel lesions in patients with diagnostic doubt on non-operative management (NOM) or unconscious patients.

Abdominal trauma with suspected intestinal injury proves to be quite challenging. Especially in patients with associated injuries that can become distracting or impose a more assertive behavior on the course of treatment of the polytraumatized patient. NOM is a reality in the world and is increasingly gaining ground when well indicated and conducted, taking into account the mechanism of trauma, the structure of the place, trained staff and availability of resources. The serial evaluation with imaging tests, physical examination and laboratory tests increases the accuracy and helps to identify a probable lesion that is not noticed or that has a late clinical presentation [1-5].

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