



AAST Acute Care Surgery Didactic Curriculum

Blunt and Penetrating Spleen Injury

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Nonoperative management for blunt splenic injury

Highlights:

- In hemodynamically stable patients who do not require abdominal surgery for other reasons, an initial attempt of nonoperative management (NOM) should be considered.
- Computed tomography (CT) findings such as grade of splenic injury, presence of hemoperitoneum, and presence of vascular abnormalities (e.g. contrast extravasation, pseudoaneurysm, arteriovenous fistula) can be useful to determine if a patient is a candidate for NOM.
- NOM should only be performed in an environment that can provide close monitoring and immediate access to the operating room.
- Age above 55 years, injury grade, moderate to large hemoperitoneum, splenic vascular abnormalities on CT, and concomitant solid organ injury are known predictive factors for failure of NOM. However, none of these factors can consistently predict NOM failure.
- Repeat CT angiography is valuable for detection of latent pseudoaneurysms, particularly in patients with high-grade injury.

Role of splenic angioembolization

Highlights:

- Splenic angioembolization should only be considered in hemodynamically stable patients
- Often considered as the first line intervention for hemodynamically stable patients with splenic vascular abnormalities on CT.
- It remains controversial whether the use of splenic angioembolization would improve the rate of splenic salvage.
- Proximal vs. distal splenic artery embolization: inconclusive data
- Drawbacks and complications include rebleeding, splenic necrosis/abscess, iatrogenic vascular injuries, and adverse immune function

Splenorrhaphy and other spleen conserving techniques

Highlights:

- Splenorrhaphy and partial splenectomy are useful surgical adjuncts for low-grade splenic injuries such as small lacerations or capsular avulsions
- Superficial lacerations can be repaired with figure of 8 sutures
- Pledgets can be used to prevent further damages to the spleen.
- The use of absorbable meshes (e.g. Vicryl mesh) can be considered when there are multiple stellate parenchymal injuries or extensive capsular injuries.