

Pediatric Embolization Guideline for Splenic Injury

Purpose: To establish guidelines regarding the indication and/or contraindication of embolization in the pediatric trauma patient population.

Scope: Trauma patients less than 18 years and older who have suffered splenic injury.

Definitions:

A. Grading of Hepatic and Splenic Injury: American Association for Surgery of Trauma (AAST)

1. Grade I:
 - a. Subcapsular hematoma: < 10% surface area
 - b. Capsular tear: < 1 cm in depth
2. Grade II:
 - a. Subcapsular hematoma: nonexpanding, 10-50% surface area
 - b. Intraparenchymal hematoma: nonexpanding, < 5 cm in diameter
 - c. Capsular tear: active bleeding, 1-3 cm, does not involve trabecular vessel
3. Grade III:
 - a. Subcapsular hematoma: > 50 % surface area or expanding
 - b. Intraparenchymal hematoma: > 5 cm or expanding
 - c. Laceration: > 3cm in depth or involving trabecular vessels
4. Grade IV:
 - a. Intraparenchymal hematoma: ruptured with active bleeding
 - b. Laceration: involving segmental or hilar vessels producing major devascularization (> 25% of spleen)
5. Grade V:
 - a. Shattered spleen or liver
 - b. Hilar vascular injury that devascularizes spleen or liver

Protocol:

- A. For pediatric patients less than 18 years old, consider vascular consult and embolization for hemodynamically stable Grade IV and Grade V splenic injury.
- B. Vascular surgeon response time:
 - a. The attending TS will communicate to the vascular surgeon the sense of urgency in a case by case basis. In patients who sustain polytrauma, notify the vascular surgeon sooner rather than later.
 - b. AE should be considered on a case by case basis depending on the extent of blush demonstrated on imaging.

C. Vaccinations:

- a. Current Advisory Committee on Immunization Practices (ACIP) recommendations indicate that if 50% or more of the splenic mass is lost, patients should be treated as though they are asplenic. Post embolization are recommended and should be given prior to discharge.
- b. For patients <18 years of age consult with pharmacist and patient's pediatrician for post splenectomy vaccine recommendations

D. Post embolization management:

- a. H&H Q 6 hours. Once stable x2 may advance diet and activity while continuing with H&H Q 6 hours. If H&H stable x2 after ambulation, serial H&H may be discontinued.
- b. Lovenox at the discretion of the trauma surgeon.

REFERENCES

REVIEW/REVISION HISTORY

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Created 05/2019	Trauma Services
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