Management of Blunt Splenic Trauma

Dr. Daryl Gray MD, FRCSC, FACS
Associate Professor, The University of Western Ontario
Director Trauma Program, London Health Sciences Centre
Department of General Surgery, London Health Sciences Centre
Objectives

• Diagnosis
• Operative Management
• Non-operative Management
• Pre-operative care
• Post-operative care
• Return to Activities
“SPLEEN BROKE”

“ME FIX”

“YAHOO!!!!”
Splenic Injury Algorithm 10 Years Ago

Learned from our Paediatric Colleagues

“Not all broken spleens need to come out”
Advance one grade for multiple injuries up to grade III.
Failure % Based on Spleen Grade

- Grade I - 5%
- Grade II - 10%
- Grade III - 20%
- Grade IV - 35%
- Grade V - 75%
Diagnosis

• History
• Physical exam
  – Hemodynamic instability
  – Kehr’s Sign
  – Rib Fractures
• Studies
  – F.A.S.T.
  – U/S
  – CT
Operative Management

• Any Patient who is unstable hemodynamically should have an urgent laparotomy.

• Trauma laparotomy with
  – Splenectomy
  – Splenorrhaphy
  – +/- Damage control

• Vaccinations post-operatively
  – When patient not compromised (2 weeks)
  – HIB, Pneumococcal, Meningococcal

• 4 week return to activity
Non-operative Management

- Patient must be stable
- Beware the transient responder
- Appropriate I.V. access
- CT protocol to accurately assess injuries
- Vaccinations +/-
Non-operative Management

• Monitored unit

• Bed Rest

• Foley

• Serial HGB q6h times 24-48 hrs.

• Repeat CT scan 48 hours.
Case 1

- 19 y.o. Male MVC 1 episode hypotension
- CT Abdomen – grade 3 splenic injury
- Treated non-operatively.
- Repeat CT Abd moved up due to long weekend
Pseudoaneurysm
Case 2

- 18y.o. snowmobiler collision with tree
- HDS with tender abd and no obvious injury
- CT abd – grade 4/5 splenic injury.
- No other injuries noted.
- Treated nonoperatively
One Month Follow-up Scan Grade 4/5 Splenic Injury
Non-operative Management – Follow up

- CT follow-up virtually abandoned
- Consider U/S to follow (not good)
- MRI+/- ??
- Return to work or activities time have no good data
- Re-vaccinations?
Conclusions

• Above all……do no harm

• Clinical exam is STILL important

• Operative management for unstable patients and at centres that do not I.R. expertise

• Non-operative management for SELECTED Patients ONLY in a centre with the capabilities to handle the complications