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Title:

The Spectrum and Management of Hepatic trauma – Experience from a Major Trauma Centre in South Africa

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Topic:

Abdominal emergency surgery

Background:

The trend in liver trauma management has progressively become more conservative and when an operation is required, most suggest that a minimalistic strategy should be adopted. However the vast majority of literature on hepatic trauma focuses heavily on the management of blunt trauma. Still the liver is also vulnerable to penetrating injuries and this mechanism presents a different spectrum of challenges. Trauma in South Africa has been aptly described as the malignant epidemic. It has an excessive burden of trauma with a marked component of penetrating injuries most common in the form of gunshot wounds (GSWs) or stab wounds (SWs).

Aim:

To compare blunt and penetrating liver trauma in order to define current management algorithms and protocols.

Methods:

Retrospective study in two major trauma centres in South Africa, during 2012-2018.

Results:

There were 367 penetrating and 441 blunt liver injuries. The age and sex distribution was similar in both groups. The shock index and RTS on presentation was significantly worse in the penetrating group. There were significantly more high grade liver injuries in the blunt cohort. There were significantly more associated intra-abdominal injuries in the penetrating group than the blunt group and 84 % of patients with a penetrating injury underwent a laparotomy whilst only 34 % of the blunt injuries underwent a laparotomy. The complication rate, need for ICU rate and mortality rate were similar in both cohorts.

Discussion:

Hepatic trauma is associated with a high mortality and morbidity. The management of blunt and penetrating liver trauma is different and the two groups are not directly analogous. The operation rate is higher in patients who have sustained penetrating trauma although the grade of liver injury is usually much lower in this group. This may be related due to the significantly worse shock index and RTS possibly due to more concurrent organ injuries.

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