Common Injury Patterns in Trauma Patients Arriving in Extremis

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Introduction

- Prehospital care has evolved, more patients may be arriving in extremis
- Resuscitative thoracotomy (RT) is performed to obtain perfusing rhythm and to help achieve temporary hemorrhage control, outcomes after RT remain dismal
- Trauma surgeons much be equipped to manage common injuries in patients arriving in extremis without specialty consultation or endovascular management

Objective

To determine common injuries in patients that arrive in extremis and identify injuries that require operative management.

Hypothesis

Patients in extremis often have injuries that require a degree of technical expertise to address.

Methods

- Retrospective review
- Level 1 trauma center, 2010-2020
- Included: Patients undergoing RT who survived to discharge or had autopsy reports
- Excluded: Sealed records, RT done outside of trauma resuscitation bay
- Data collection: Demographics, signs of life (SOL), diagnoses, grading

Results

	Blunt (n=70)	Penetrating (n=109)
Age	34.5	28
Male	73%	95%
Field SOL	93%	88%
Admission SOL	46%	41%
ISS	44	43

Results

Blunt (n=70)	Penetrating (n=109)
Traumatic brain injury: 44%	Lung: 54% (grade 3)
Pelvic fracture: 36%	Cardiac: 40% (grade 4)
Hepatic: 34% (grade 3)	Hepatic: 29% (grade 4)

Conclusions

- High-grade cardiac and hepatic injuries, along with pelvic fractures, are commonly seen operative injuries among patients arriving in extremis
- Trauma surgeons must be able to manage such injuries independently without dependance on specialty consultation or endovascular approaches.