

Pelvic Angiography for Trauma in Children: a Rare but Useful Adjunct

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We have no conflicts of interest to disclose.

Background



- External Compression



- Angiography



- Pelvic packing



- Direct vessel ligation

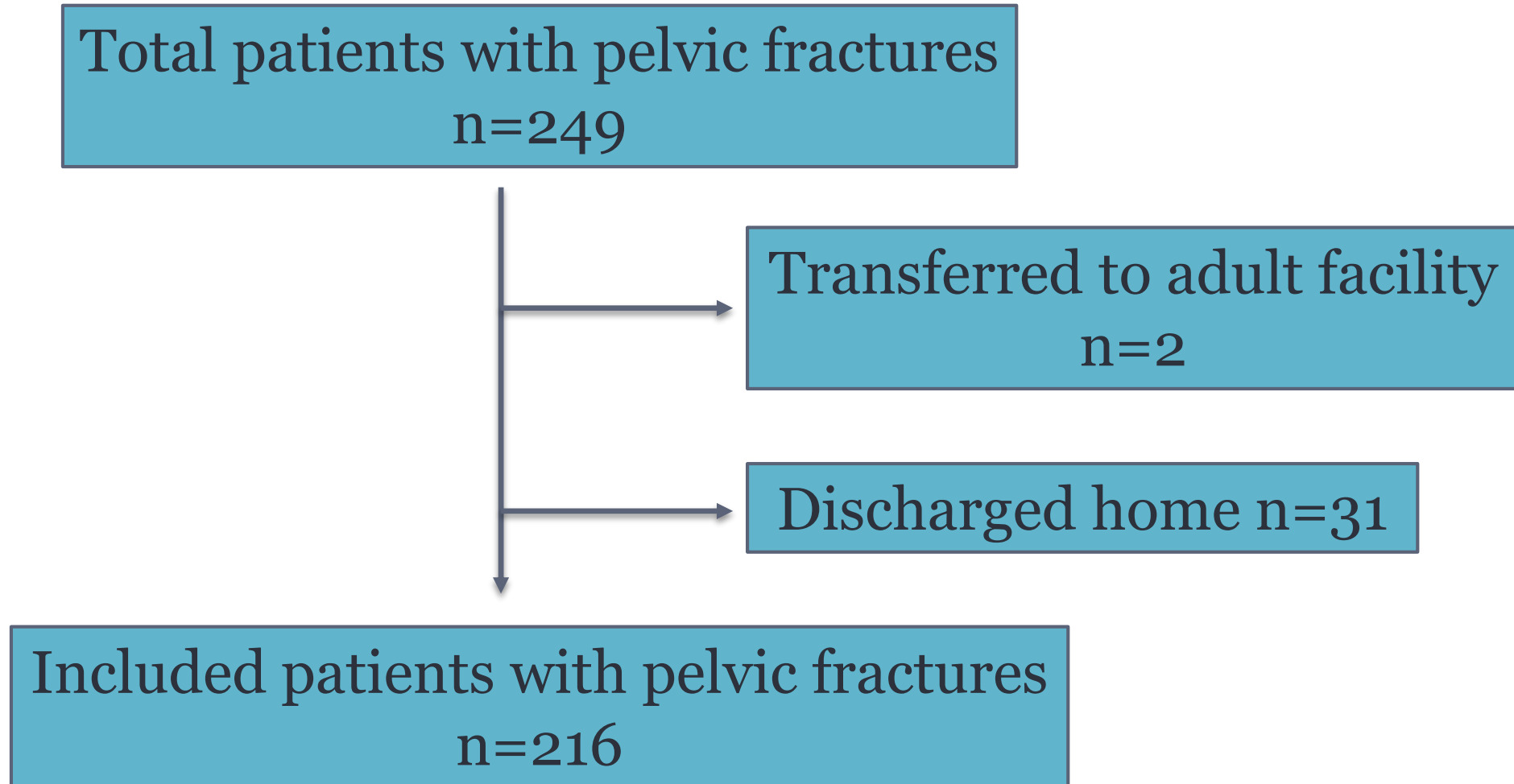
Background

- EAST Guidelines 2011
- 85-100% success rates

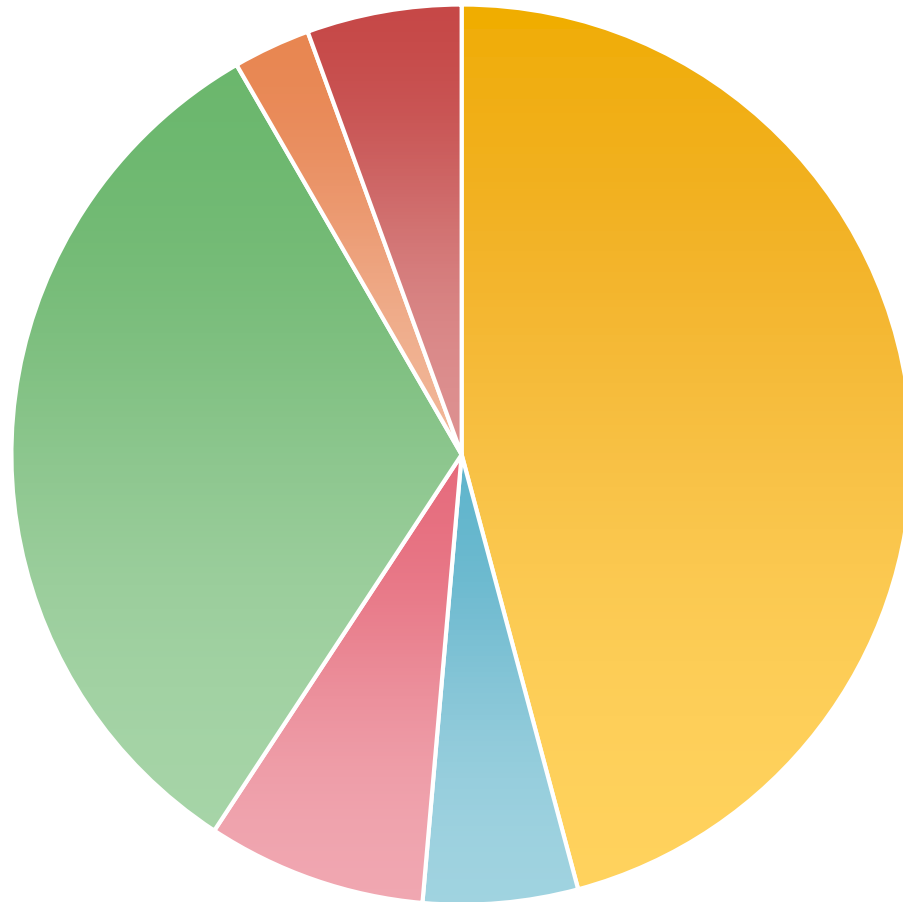
Methods

- Retrospective review
- Level 1 Trauma
- 2004-2014

Results

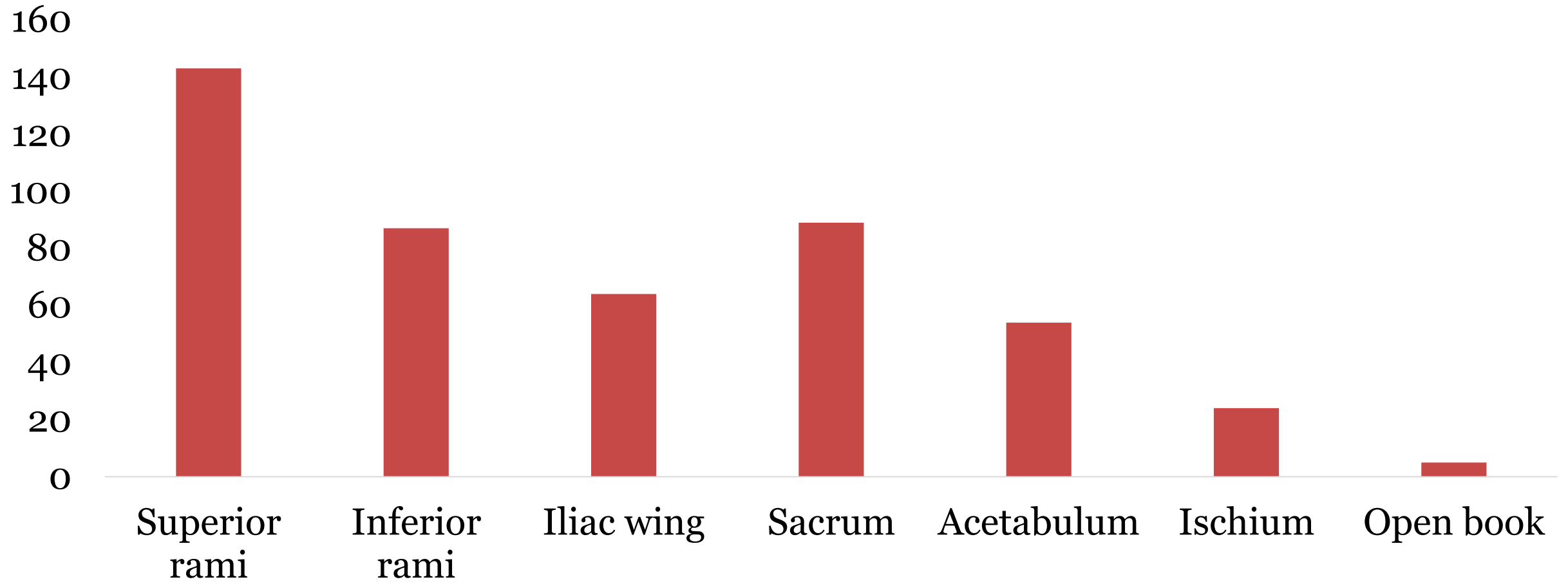


Mechanism of Injury



- Motor vehicle collision
- Fall
- All terrain vehicle
- Automobile vs pedestrian
- Animal
- Other (abuse, gun shot, sports injury, TV)

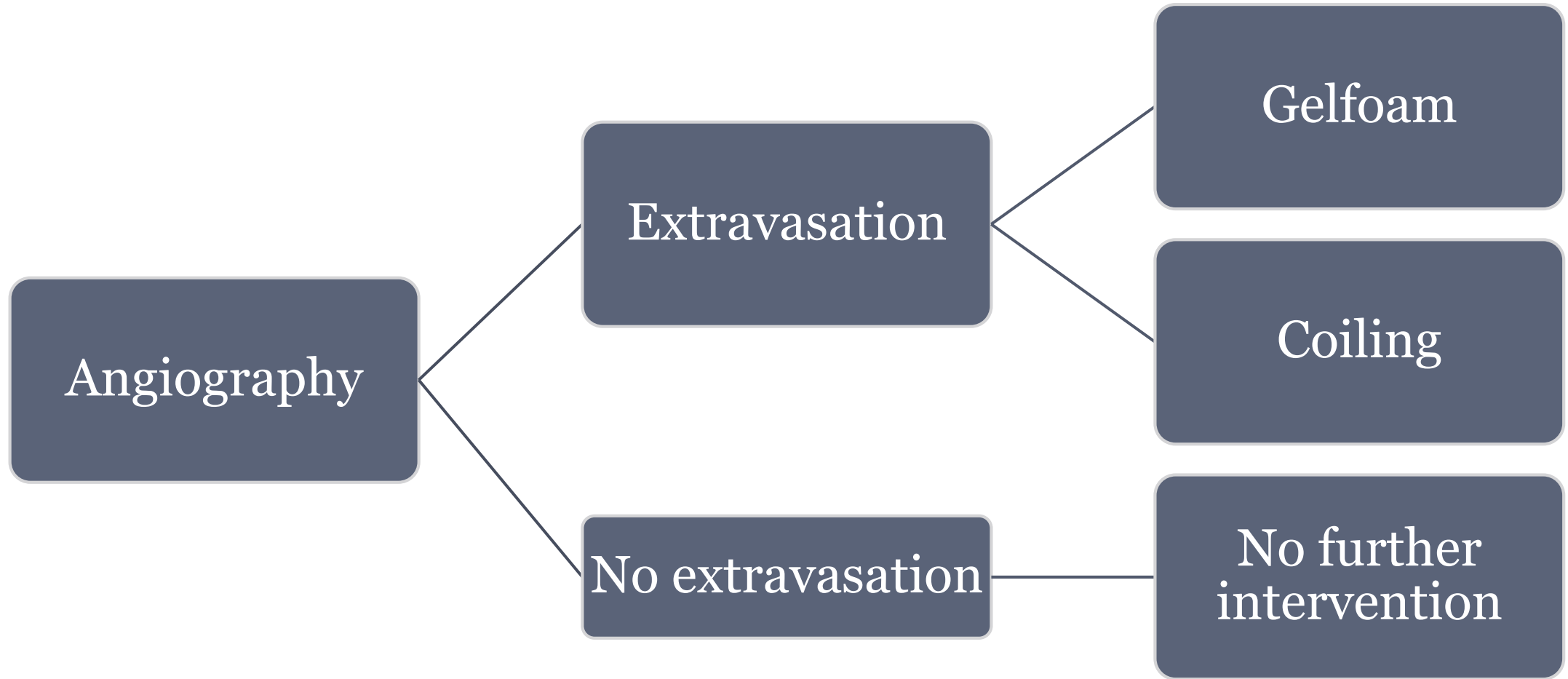
Distribution of Pelvic Fractures



Associated Injuries

| Location | (n) |
|----------------------|-----|
| Long bone fracture | 57 |
| Thoracic | 61 |
| Solid organ | 38 |
| Hollow viscous | 3 |
| Rectal/genitourinary | 4 |
| Spinal fracture | 21 |
| Head | 33 |

- 28 patients (13%) had operative treatment of pelvic fractures
 - External fixation
 - Open reduction internal fixation
 - Spica
- No preperitoneal packing



*No incidence of pseudoaneurysm, femoral artery thrombosis or end organ necrosis.

Contrast extravasation on CT scan?

- Three patients
- Stabilized in the ICU
- 2/3 concurrent injuries
- 2/3 blood transfusion but responded
- 2/3 OR the following day for pelvic repair

Conclusion

- Angiography appears to be a safe therapy in children.
- Reserve for those with ongoing blood loss.
- Despite extravasation, consider stability of the patient first, as angiography may not be necessary.

Future Direction

- Need for a standard treatment algorithm for severe pelvic fractures
- Consider a protocol based on the management of pediatric liver and splenic trauma.