

FEEDBACK TO THE FIELD (FT2F) #6:

*Perforation of the Sternum by an Intraosseous Infusion Device**

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Original Issue

FEEDBACK TO THE FIELD:

Perforation of the Sternum by an Intraosseous Infusion Device

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CASE OVERVIEW:

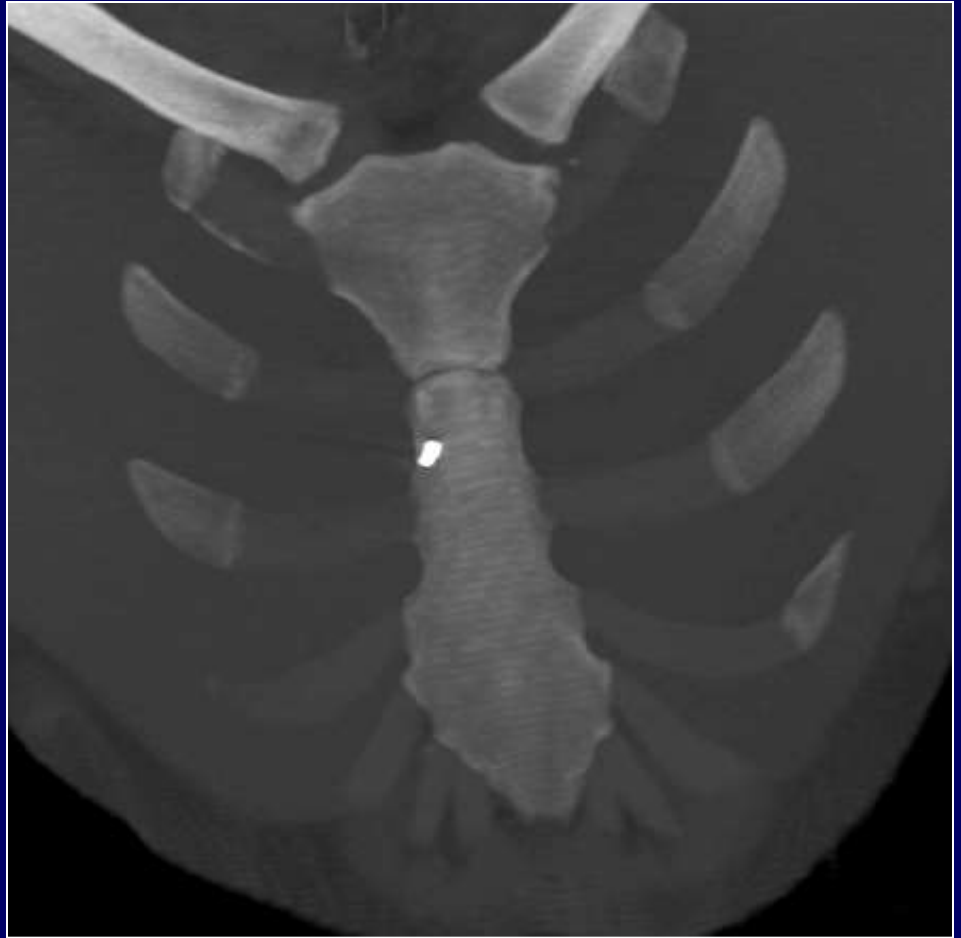
- Individual in a vehicle hit by an IED
- Lethal injury to the lower extremities and pelvis, to include traumatic amputations.
- Emergency treatment included tourniquets, sternal IO-IV, and bilateral proximal humeral IO-IV's.
- Postmortem MDCT showed the sternal intraosseous infusion device perforated the sternum, this was confirmed at autopsy.



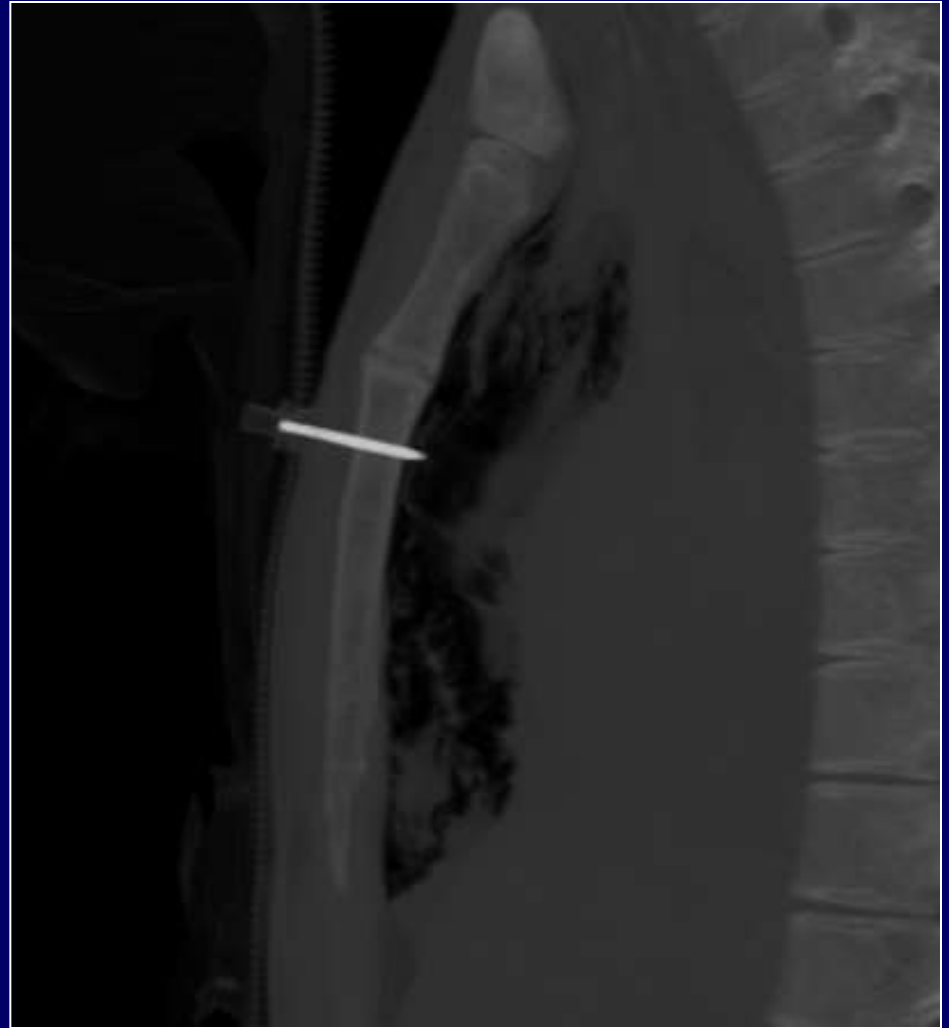
IO-IV device in situ
at postmortem exam
(note bilateral
humeral IO-IV's)



Postmortem MDCT image of the sternum shows needle placement in the body of the sternum (arrow).



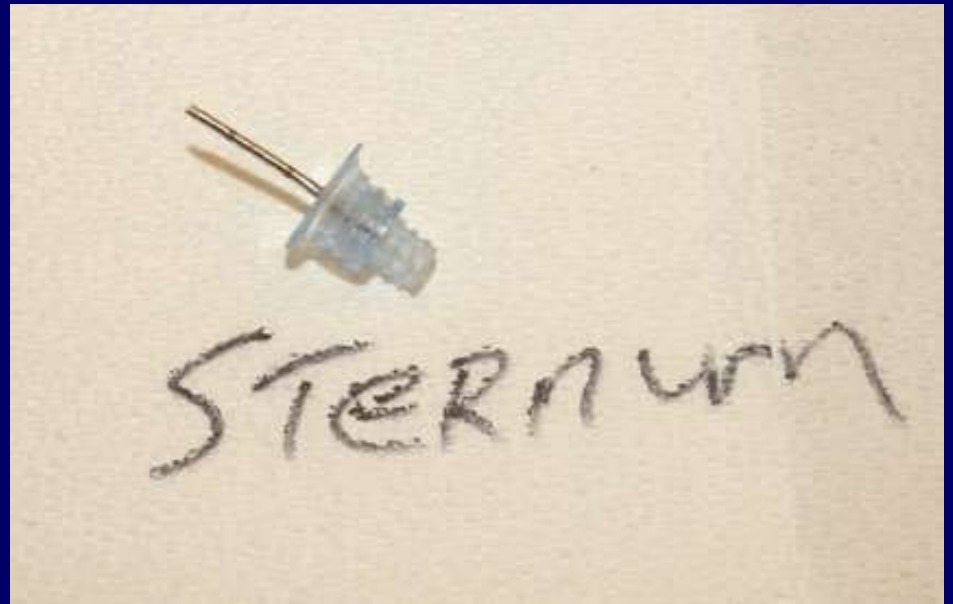
Sagittal MDCT image of the shows the IO-IV needle passes through the sternum with the tip in the anterior mediastinum (arrow).





Needle penetration into the anterior mediastinum.

Needle removed
from sternum.



SUMMARY

Intraosseous intravenous needles designed for long bone insertion have the potential to perforate the sternum, a thinner and less dense bone.

CAUTION:

The clinical circumstances and specific details surrounding the delivery of emergency treatment in this case are unknown.

This material is intended for educational and training purposes. If portions are extracted, the following statement must be included:

“Source: Armed Forces Medical Examiner System”

NOTES of CAUTION:

- The clinical circumstances and details surrounding emergency treatment in these cases is unknown
- This presentation makes no association between device placement and outcome of treatment
- This case series is drawn from cases with fatal injuries, which may skew data

For FT2F Comments / Questions / Requests:
Contact the Armed Forces Medical
Examiner System (AFMES)

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