



# High Pressure Injection Injuries of the Hand



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## CASE EXAMPLE



41 y/o male, **3-days post injury**

- Punctate entry at PIP crease
- Diffuse spread of paint within volar soft tissue
  - Along flexor sheath surface
  - Along neurovasc bundles
  - Dorsal extension



Postop 1-wk  
--Partial closure



Postop 2-wks  
--Healing & Fair ROM

## OBJECTIVE

- To review:
  - Presentation
  - Operative management
  - Outcomes

## METHODS

- Retrospective chart review
  - 2002-2012 (10 yrs)
  - Patients of ESM & CKL

## Treatment Checklist "i-BASE"

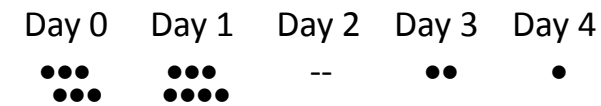
- i** = *Immediate* decompress & debride
- B** = *Broad* spectrum antibiotics
- A** = Postoperative splinting *acutely*
- S** = *Scrupulous* wound care
- E** = *Early* range of motion.



## RESULTS

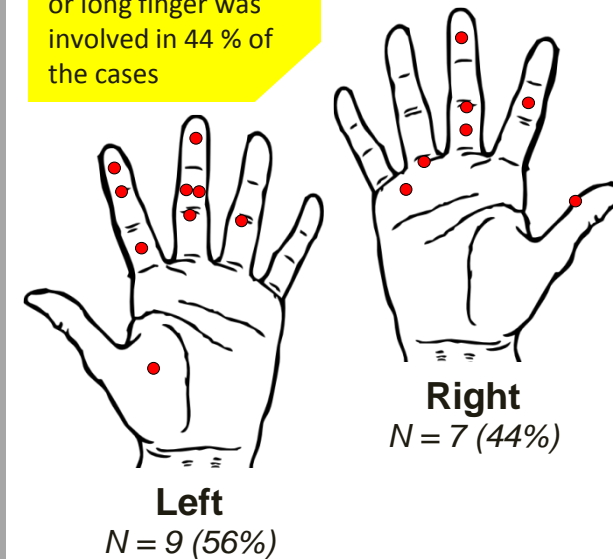
- N = 16 pts
- Mean age = 34 yr (range 15-52)
- **All male, RHD, work-related**

## # Pts by Post-Injury Day Presentation

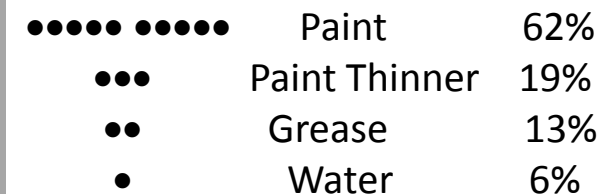


## # Pts by Injury Location

Non-dominant index or long finger was involved in 44 % of the cases



## # Pts by Material Injected



## RESULTS

- 50% sought treatment elsewhere before presenting to ESM or CKL

## Follow-up

- # Pts that followed up until healed 9 pts
- Mean heal time 3.75 wks
- Amputation 1 pt
- Range of motion
  - Excellent 6 pts
  - Fair 3 pts
  - Poor 1 pt



## CONCLUSIONS

- Substantial functional disability can result from high pressure injection injuries to the hand.
- Prompt evaluation & operative treatment is mandatory.
- Severity is often underestimated by patients and some physicians.