Removal of Ingested Open Safety Pin

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INTRODUCTION

- ~75-80% of ingested foreign bodies (FB) pass without intervention
- < 20% can be endoscopically retrieval & < 5% require surgery
- High-risk FB with sharp edges may preclude passage & risk perforation
- Expeditious evaluation & management is necessary to avoid more invasive interventions correlated with distal progression

CASE PRESENTATION

- 46F ingested an open safety pin
- XR demonstrates FB in the stomach (fig. 1)
- Surgery consult delayed; CT revealed progression to jejunum (fig. 2)
- Diagnostic laparoscopy unable to visualize the FB
- Intraoperative fluoroscopy & running the bowel localized the FB
- Jejunal-loop containing the FB exteriorized via mini-laparotomy
- FB extracted via anti-mesenteric enterotomy
- Enterotomy repaired primarily & abdomen closed
- Post-op course uncomplicated: Return of bowel function on POD1 & discharge home on POD2. No complications at 2-week follow-up.

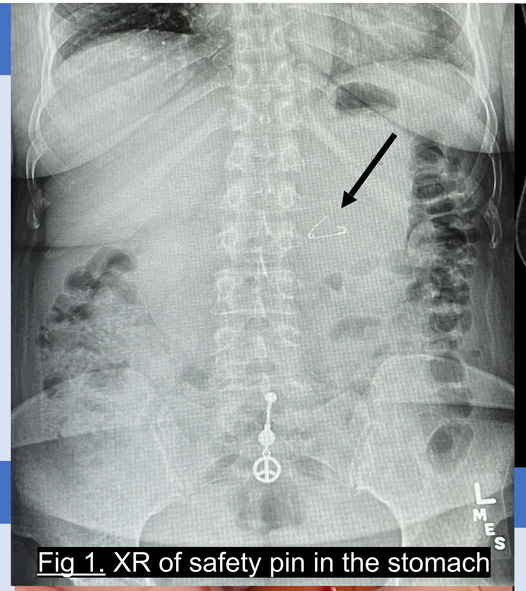


Fig 1. XR of safety pin in the stomach

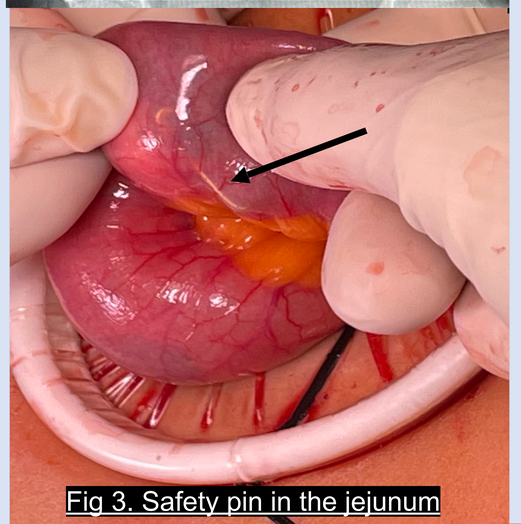

Fig 3. Safety pin in the jejunum


Fig 2. CT of safety pin in the jejunum

DISCUSSION

- High-risk FB ingestion warrants prompt surgical consultation
- Timing from ingestion to evaluation is imperative
- Less invasive interventions limited to early presentation; in this case, delay in surgical consultation precluded endoscopic extraction
- Laparoscopy with intraoperative fluoroscopy is effective for radiopaque FB
- This demonstrates the importance of FLS
- Skills & techniques obtained from this curriculum lead to less morbidity & decreased length of stay associated with laparotomy
- Future improvements to similar cases include: laparoscopic enterotomy, FB extraction via laparoscopic port, & enterotomy closure by intracorporeal suturing which may lead to decreased length of stay.