



Through-and-through Blunt Duodenal Injury in a Pediatric Trauma Patient: A Case Report



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Background

In pediatric trauma:

- Blunt trauma^{4,5}:
 - ~90% of total abdominal injuries
- Duodenal injuries^{1,4,5}:
 - ~3-5% of total abdominal injuries
- Isolated duodenal injuries are extremely rare^{3,4,5}

Case Presentation:

- 11y F w/no PMHx/PSurgHx
- CC: abd pain following fall onto bicycle
- Vitals: HTN, tachycardia
- Physical exam: epigastric abdominal tenderness
- FAST performed: initially negative
- Labs: WBC 17,100/uL
- CT A/P: duodenal injury with free intraperitoneal

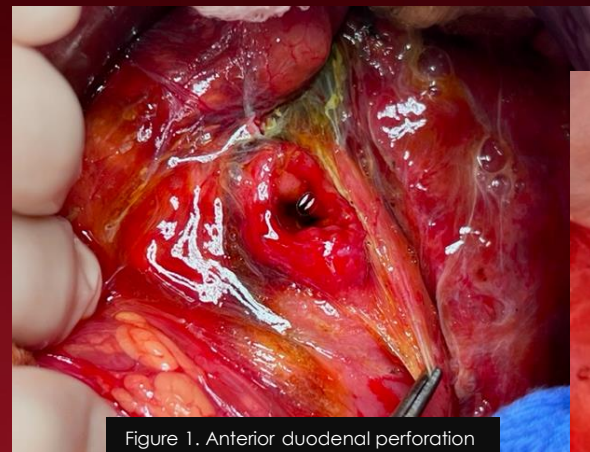


Figure 1. Anterior duodenal perforation

Exploratory laparotomy with primary repair

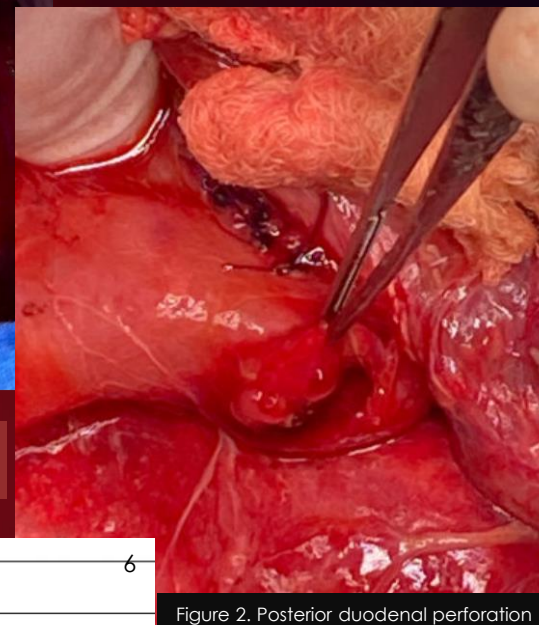


Figure 2. Posterior duodenal perforation

Operative Intervention

Duodenum injury scale			6
Grade*	Type of injury	Description of injury	
I	Hematoma	Involving single portion of duodenum	
	Laceration	Partial thickness, no perforation	
II	Hematoma	Involving more than one portion	
	Laceration	Disruption <50% of circumference	
III	Laceration	Disruption 50%-75% of circumference of D2	
	Laceration	Disruption 50%-100% of circumference of D1,D3,D4	
IV	Laceration	Disruption >75% of circumference of D2	
	Laceration	Involving ampulla or distal common bile duct	
V	Laceration	Massive disruption of duodenopancreatic complex	
	Vascular	Devascularization of duodenum	

Conclusions

- Duodenal injuries are rare in traumas^{1,3,4,5}
 - Recognition is often delayed
 - High index of suspicion is required
- If suspected, a thorough evaluation is required to avoid increased morbidity^{1,3,4,5}
- Primary repair is acceptable for injuries <50% circumference²

Resources/Acknowledgements

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