July JTACS Image of the Month

Article:

Outcomes Among Trauma Patients with Duodenal Leak Following Primary vs Complex Repair of Duodenal Injuries: An EAST Multicenter Trial

Figure Legend:

Figure 1: Intraoperative Image of Right Upper Quadrant Stab Wound with Injuries to the Third Part of the Duodenum, Right Kidney, and Suprarenal inferior Vena Cava

Figure 2: Primary Two-Layered Repair of Grade III Laceration of D3

Case Vignette:

A 23 year old male was admitted following a single stab wound to the right upper quadrant with eviscerated large bowel. The patient was hypotensive upon arrival with evidence of peritonitis on exam. The patient was brought emergently to the operating room where he was prepped and draped for an exploratory laparotomy.

At laparotomy, the patient was profoundly hypotensive with evidence of a large right Zone I retroperitoneal hematoma. Due to refractory hypotension, a supraceliac aortic cross clamp was applied and massive transfusion protocol administered. Injuries identified included a suprarenal inferior vena cava (IVC) injury, Grade III laceration of the third portion of the duodenum, and right Grade IV renal injury.

Damage control was performed including primary repair of the IVC injury and duodenum, as well as right nephrectomy. Following repeat interval laparotomy, the patient was successfully closed and discharged home on postoperative day 18.

Clinical Pearls:

- Generally, simple repairs of the duodenum are preferred to complex repairs with adjunctive measures.
- Previous studies have demonstrated that need for transfusion prior to the operating room, associated pancreatic injuries, and postoperative renal failure are predictors of mortality for patients with duodenal injuries

References:

