

Pancreatic Pseudocyst: What is lurking behind the cyst's walls?

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Introduction

Ruptured pseudoaneurysm secondary to a pancreatic pseudocyst is a rare event with a high mortality rate. We present a case of a child with ruptured pseudoaneurysm following pheochromocytoma resection.

Past Medical History

- 13 y.o., 31 kg white male with a history of pheochromocytoma s/p resection 2 weeks prior
- Presented with abdominal pain & right upper extremity swelling
- CT of abdomen revealed a pancreatic pseudocyst & RUE DVT
- Hospitalized and medically managed for 3 weeks

Operative Course

- On HD 26 found unresponsive in cardiopulmonary arrest
- Resuscitation initiated: Hgb 3 mg/dL w/ distended abdomen
- Emergent exploratory laparotomy revealed a ruptured SMA
- Required re-exploration X 2 in next 24 hours
- Total blood product & hemostatic agents utilized
 1. PRBC 45 units
 2. FFP 33 units
 3. Platelets 10 units
 4. Cryoprecipitate
 5. Prothrombin complex concentrate
 6. Factor VII concentrate
 7. Aminocaproic acid & tranexamic acid
- Post-operatively renal failure ensued requiring CRRT
- ECMO cannulation occurred d/t hemodynamic instability
- On POD 7 neurological changes from intracerebral bleed
- Child compassionately extubated and ECMO discontinued

Discussion

- Pancreatic pseudocyst is a relatively common complication of pancreatitis in the adult population — typically a sequelae of chronic pancreatitis
- Pancreatic pseudocyst is uncommon in pediatrics — usually from blunt force trauma
- Pseudoaneurysm can develop secondary to chronic inflammation from the effect of enzymatic destruction on the vessel wall
- Incidence of ruptured pseudoaneurysm in adults is 2% and exceedingly rare in the pediatric population
- Ruptured pseudoaneurysm carries a 43% mortality rate



Conclusions

- Pancreatic pseudocyst is an uncommon complication in the pediatric population with the majority caused by blunt force trauma
- Pseudoaneurysm of an adjoining artery to a pancreatic pseudocyst is an uncommon sequelae in adults and exceedingly rare in children
- Anesthesiologists must consider a pseudoaneurysm in adjoining tissue to a pancreatic pseudocyst
- Preparation for massive transfusion requirements is necessary if encountering a pseudoaneurysm secondary to a pancreatic pseudocyst
- A ruptured pseudocyst carries a high mortality rate

References

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