Splenic artery pseudoaneurysm due to recurrent pancreatitis: coiling or stenting?

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Disclosure

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I have the following potential conflicts of interest to report:

☐ Consulting
☐ Employment in industry
☐ Stockholder of a healthcare company
☐ Owner of a healthcare company
☐ Other(s)

☑️ I do not have any potential conflict of interest
INTRODUCTION

• Rare entity
  • < 200 case reports in literature

• Etiology
  • Pancreatitis and pancreatic pseudocysts
  • Trauma and postoperative causes
  • Peptic ulcer disease (rarely)

• Clinical diagnosis challenging
  • Presentation is varied
  • Incidental finding \(\rightarrow\) collapse from sudden rupture
INTRODUCTION

• Clinical presentation
  • Abdominal pain, hematemesis, melena, flank pain, chest pain
  • Up to 58% of patients with bleeding are hemodynamically unstable at presentation

• Risk of rupture 37%
  • Mortality 90% if untreated
  • Size is not a predictor of rupture
INTRODUCTION

• Pathophysiology
  • Pancreatitis
    • Release of pancreatic enzymes causes necrotising arteritis
    • Destruction of vessel wall architecture + fragmentation of elastic tissues

• Diagnosis
  • CT
    • Exclude other life-threatening conditions
    • Small SAPA can be missed
  • Direct catheter angiography
    • Dual advantage: diagnostic and therapeutic
INTRODUCTION

• Recommendations for treatment
  • Treat all pseudoaneurysms
    • prevent sudden rupture and massive hemorrhage

• Treatment strategies
  • Endovascular
    • Transcatheter embolization
      • Coils +/- additional embolic agents (plugs/liquid embolic agents)
    • Stent grafts
  • Surgical
INTRODUCTION

• Procedural outcome
  • 75-98% primary technical success
  • 3-11% re-intervention rate

• Complications
  • Overall CR 18.2%
  • Post-interventional splenic infarction 21-40%

• Need to follow-up
  • To rule out early reperfusion or detect complications requiring monitoring
  • At least 1 year after treatment
CASE REPORT

- A 38-year-old man presents with abdominal pain
- Hemodynamically stable
- History of recurrent pancreatitis

- CT
CASE REPORT

• CT angiography
CASE REPORT

• Postintervention
  – CT at day 5:
CASE REPORT

• Postintervention
  • Percutanuous drainage of liverabcess
  • Spleen is afunctional
    – Antibiotics + vaccinations following protocol
• Discharge on day 19 postintervention
• US 1 month later
  – Stable splenic infarction
  – Liverabcess succesfully drained
  – Pancreatitis
WHEN TO COIL OR STENT?

• Choice of technique
  • Local anatomy of the PA
  • Experience of the interventional radiologist

• High technical success rate

• Possible complications (early/delayed)
  – Coiling
    • multisegmental splenic infarctions, postembolization syndrome, gastrosplenic fistula (2013)
  – Stenting
    • migration, erosion through stomach (2016)
CONCLUSION

• Rare entity
  • challenging clinical picture

• Early diagnosis and urgent treatment

• Treat all pseudoaneurysms
  • due to high risk of bleeding

• Endovascular therapy is safe and effective
  • especially for multimorbid patients even in the emergency situation

→ Choose the intervention of your expertise in combination with the anatomy of your patient
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