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Splenic Artery Aneurysm Masquerading as Chest Pain: A Case Report of a Rare Clinical Presentation

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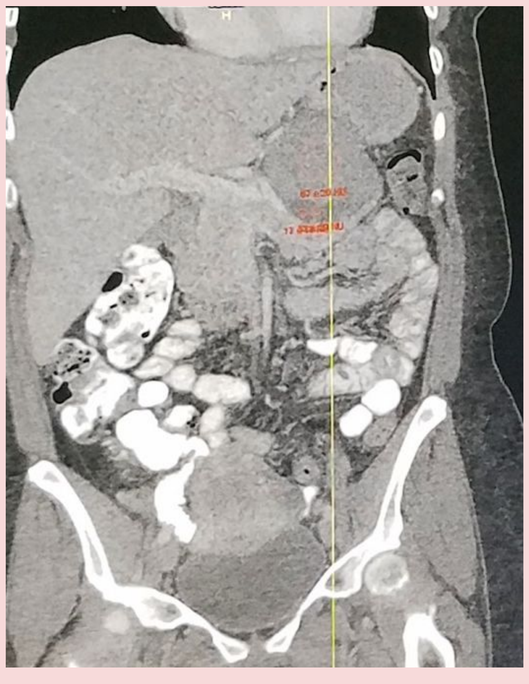
Background

- When symptomatic, splenic artery aneurysms (SAA) most commonly present with vague epigastric or left upper quadrant abdominal pain that may radiate to the left shoulder [1]
- Chest pain associated with splenic artery aneurysm is an unusual phenomena [2,3]

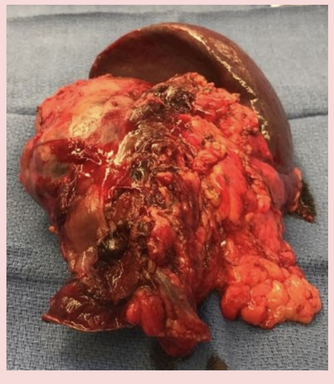
This case report presents a rare occurrence of a splenic artery aneurysm originally presenting as atypical chest pain

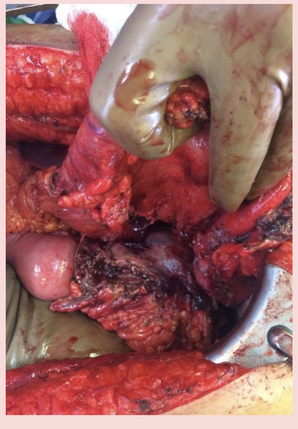


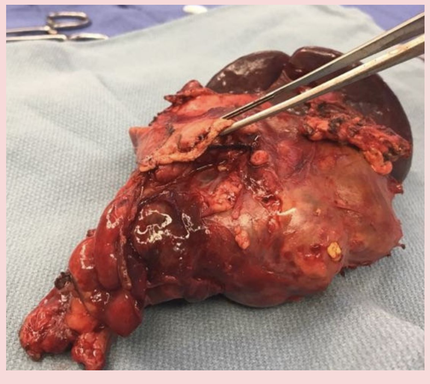
CT abdomen and pelvis with and without contrast revealing a large lobular mass in the LUQ

Case Presentation

- 46 year old G3P2 AAF patient with family history of hypertension
- Presented to the ER with pleuritic left anterior chest pain and episodes of shortness of breath reported for a duration of five days. The patient also presented with new onset hypertension
  - Chest x-ray was negative for any acute pathologies
  - EKG showed non-specific changes
  - Pertinent labs included a hemoglobin of 10.6 and D-dimer of 4.10
  - CT angiogram of the chest revealed no evidence of pulmonary embolism and b/l US of the lower extremities that was negative for DVT
- Following her negative workup, the patient's symptoms were presumed to be related to allergies or asthma, although there was no symptomatic improvement with albuterol inhaler
  - Discharged on a five-day trial of prednisone and Norvasc for BP control
- Following discharge, the patient's symptoms persisted and began to present as LUQ abdominal pain with fullness
  - CT of the abdomen and pelvis with and without contrast revealed a large lobular mass in the LUQ with unknown origin
- Subsequent evaluation using endoscopic ultrasound with biopsy suggested a mass arising from the left adrenal gland
- Left lateral approach CT guided biopsy of the mass was non-diagnostic
  - Therefore, open exploratory laparotomy was performed and surprisingly revealed a splenic artery aneurysm that had recently ruptured. The patient underwent distal pancreatectomy, splenectomy, and adrenalectomy during this operation.







Discussion

- SAAs are usually asymptomatic
  - Only 20% of cases present with symptoms, and rarely initially present with chest pain
- Further imaging may be required in patients with unexplained chest pain who present with hemodynamic and hematologic changes
  - CT angiography is the initial diagnostic tool of choice for SAAs
- SAAs carry potential risk for rupture and life-threatening hemorrhagic shock
  - Mortality rate of ruptured SAA is 10–25% in non-pregnant patients

Conclusions

Although the presentation of a splenic artery aneurysm as chest pain is rare, evaluation for this pathology may be indicated in patients with new onset left chest pain, hematologic abnormalities, and negative pulmonary/cardiac workup.

References

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