Isolated Infrarenal Aortic Dissection and Penetrating Aortic Ulcer: Non-Morbid Conditions: Indications For Treatment And How Should They Be Treated

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Disclosures
• Gore
• Cook
• Endologix
• Medtronic

Infrarenal Dissection and PAU

• Isolated infrarenal aortic dissection and PAU are uncommon
  0.4-2% of aortic dissections are infrarenal
• Increased utilization cross sectional imaging may lead to more frequent diagnosis of pathology.
• Natural history and optimal management are unclear.

Isolated Infrarenal Aortic Dissection and Penetrating Aortic Ulcer: a Nonmorbid Condition

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• Inclusion criteria:
  • Infrarenal aortic dissection identified on imaging- as interpreted by a cardiovascular radiologist
• 29 patients that met criteria were identified
• Mean follow up: 26 ± 37 months (0-138 months)
Patient Characteristics:

Mean Age 66 ± 16yr (27-94yr)

Gender 66% male (19/29), 44% female (10/29)

Mean follow up (months) 26 ± 37mo (0-138mo)

Smoking history 41% (12/29)

HTN 69% (20/29)

Family history of aortic pathology 10% (3/29)

Marfans disease 7% (2/29)

Symptomatic at diagnosis 21% (6/29) (abdominal pain 3, back pain 3)

Anatomic Characteristics:

Maximum aorta diameter 2.85 ± 1.4cm (1.4-6.7cm)

Average length of dissection 76.6 ± 65mm (15-204mm)

Iliac artery involvement 41% of patients

4 patients had bilateral iliac involvement

Technical Success 100%

Indications for Intervention:

Open Surgery 0 (0%)

Endovascular intervention 5 (17%)

Results

Patients managed medically non-operatively 49% (29/60)

Patients that required procedure 51% (31/60)

Evolution of symptoms 96% (58/60)

Symptoms attributable to aortic dissection 6%

Symptoms attributable to aortic dimension 4%

Indications for Treatment

• Rupture
• Malperfusion
• Persistent pain
• Dissection in AAA
• PAU

Pain resolved with Treatment

• AAA>3cm-Repair
Treatment

- Open Repair
- EVAR

Anatomy
- Dissection Extent

Conclusions

- Isolated infrarenal aortic dissection is uncommon
- Many are incidental
- Usually can be managed with observation alone
- Treatment indications:
  - Rupture
  - Malperfusion
  - Persistent pain
  - AAA
  - PAU
- Endovascular techniques are often successful