A New Non A, Non B Classification For Aortic Dissections Involving The Arch: Why Is It Better And How To Treat Such Dissections

Aims
To evaluate the incidence, clinical presentation, treatment and outcome of patients with Non-A Non-B aortic dissection (involving the arch, but not ascending aorta)

DISCLOSURE
No disclosures
Methods

Time: 2001-2016
Cumulative caseload: 396 acute dissections
Study cohort: 43 (11%) acute Non-A Non-B dissections

Non-A Non-B Subtypes

Descending entry, n=21
Arch entry, n=22

Non-A Non-B Descending Entry

Clinical Presentation

60 (53; 66) years old
84% males
84% hypertension
23% nicotine abuses
2% Marfan syndrome
7% cardiogenic shock
33% at least one organ malperfusion

Aortic Anatomy

Arch configurations
28% 2-fold more
2%
16% 4-fold more

Dissection extension
93%

Entry Location

50% 19% 7%
23%
Aortic Repair

- No repair
- Elective (16%)
- Urgent (40%)
- Emergency (33%)

5 new visceral m.
2 new iliac m.
2 uncontrolled pressure
2 persisting pain
1 aortic aneurysm
1 PAU
1 rapid diameter increase
2 aortic ruptures emergencies

In-hospital Mortality

- Descending entry:
  - Overall: 5%
  - Urgent, elective: 0%
  - Emergency: 17%
- Arch entry:
  - Overall: 14%
  - Urgent, elective: 0%
  - Emergency: 37%

Retrograde Type A Dissection

- Descending entry: 5%
- Arch entry: 18%

All except for 1 after TEVAR

26% TEVARs for arch entry type developed type A dissection

Freedom From Aortic Repair

- Log rank, P = 0.541

Entry Tear Closure

- Descending entry: 90%
- Arch entry: 62%

P = 0.067
Open Entry Tear After Primary Repair

Total n=8
- n=1 consent
- n=1 Type A
- n=4 aortic aneurysm
- n=2 died

Conclusions

- Incidence 11%
- 1/3 emergency surgery for malperfusion or rupture
- 2/3 aortic repair within 2 weeks
- Entry tear closure should be aimed
- TEVAR in arch entry type should be avoided

NOT EVERYTHING IS BLACK AND WHITE