Should Saccular AAAs Be Treated Differently From Other AAAs?

What Are The Size Criteria?

Disclosures

- None relevant.

Disclaimer

- Talking about atherosclerotic saccular abdominal aortic aneurysms (sAAA).
- Not about infected, mycotic, or traumatic sAAA.

Background

- Saccular aortic aneurysms (sAA) have historically been perceived to have a greater rupture risk than their fusiform counterparts.
- Most prior reports have suggested that surgical repair is the only reasonable option, regardless of aneurysm diameter.

Definition of size

- Henceforth, will use maximum TAD
What diameter to use? TAD = 5.5 cm

Radiology database at the Hospital of the University of Pennsylvania queried retrospectively for sAA.
322 sAA's identified in 284 patients.
8 years
50 patients had CTA followup.

sAA – chest & abdomen

sAA – Growth Rate (n=50)

Saccular abdominal aortic aneurysms (sAAA)

All atherosclerotic aneurysms, followed for one reason or another
N=25 fusiform AAA
N=29 saccular AAA (sAAA)

No difference in initial diameter
No difference in growth rate
No sAAA ruptured during observation
So maybe sAAA aren’t inherently more rupture-prone than fusiform AAA.

So, how big do sAAA have to be before we worry?
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- Not much guidance from the literature.
- Not much guidance from pivotal trials

Some guidance from computational modeling.

And, if we reexamine our clinical data...

If growth rate is correlated with rupture risk, then small sAAs would seem to have small rupture risk, analogous to fusiform AA's.
sAAA's with TAD ≥ 5.0 cm should be repaired in patients with reasonable life expectancy.

Atherosclerotic sAAA's with TAD < 5.0 cm may be observed with serial CT scans.