Size (Diameter) and Normal Growth Rates of the Aorta from Top to Bottom: At What Thoracic Aortic Size is there a Real Risk of Rupture

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I have nothing to disclose

How big is the normal aorta?

Almost Normal distribution, with wide R tail

Log Normal distribution

Growth rates

Ascending aorta: 0.20 cm/year

Descending aorta: 0.26 cm/year

Thoracoabdominal aorta: 0.23 cm/year

An Indolent Process

Growth Rates of Thoracic Aorta

Min 1.6
Mean 3.2
Max 5.0
ASCENDING AORTA
Hinge Point – Ascending Aorta

Increased Risk of Complication

Yearly Risk of Rupture, Dissection, and Death (across all locations)

Yearly Risk of Any Complication

Risk of Complications – BSA

Criteria for Prophylactic Surgical Intervention

What about the Frequency Distribution Paradox for Aortic Dissection?
What about the Frequency Paradox for Aortic Dissection?

Relative risk of aortic dissection based on size

Genetics of Thoracic Aortic Aneurysm

Features of Specific Familial Etiologies of Thoracic Aortic Aneurysm

The Biomechanical properties of aortic tissues

Clinical Significance

- This analysis strongly supports the advisability of elective, preemptive surgical intervention for the lethal condition of large thoracic aortic aneurysms