



GEN50 - A unified protocol for analysis of the aorta results in high reproducibility of measurements across imaging modalities. The GenTAC iCORE experience.

OBJECTIVE: To test the impact of a standardized image analysis protocol prospectively implemented in all imaging modalities.

ORGANIZATION

Lead Federico M Asch, MD

Investigator:

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CONCLUSIONS

Results:

- A unified analysis protocol for CTA and TTE results in excellent reproducibility of aortic measurements but not of AA. Gated CTA overcomes cardiac motion artifact and results in improved reproducibility of the proximal segments (AA and SV)

BACKGROUND AND RATIONALE

In patients with aortic aneurysms, the vessel diameter is the most important predictor of aortic dissection and rupture. While multiple imaging modalities (such as echo, CT and MRI) can be used for this purpose, measurements differ when obtained by different modalities. Multiple factors account for these differences: some are inherent to the imaging technique (2D vs 3D, live vs reconstruction), others are related to the acquisition protocol (EKG gated or non-gated, single heart beat vs multiple, etc) and some are related to the lack of standardization in the image analysis methods.

DESIGN

Hypothesis: By utilizing a uniform analysis protocol across all imaging modalities we could obtain a high level of reproducibility in measuring the aorta.

Inclusion criteria:

- Subject for which the GenTAC imaging CORE lab received a CT and an echo performed within 30 days from each other.

Exclusion criteria:

- Subjects who have an aortic graft

Samples:

- None

Data:

- Demographics
- Imaging

