New Concepts For Better Understanding Aortic Arch Pathology, Its Progression And Treatment

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Significant increase in depending on the Type of Arch (P<0.009)

Stent graft to aorta (mis)match: angulation & drag forces

Comparison between Types of Arch

Type I

Type II

Type III

Stent graft to aorta (mis)match: angulation & drag forces

Effects of endograft parameters on drag forces potentially causing migration and endoleak

CFD can be used to calculate drag forces which likely cause endograft migration and endoleak

In the thoracic aorta drag forces are oriented predominantly in cranial direction

Stent graft to aorta (mis)match: angulation & drag forces

Effective arch landing zones for thoracic endovascular aortic repair according to aortic arch type

Zone 3

1. severe angulation and tortuosity
2. high pulsatile forces

The location of the primary entry tear in acute type B aortic dissection affects early natural

The Westhoff Arch Landing Zones (WALZ): improves prediction of endovascular arch repair: proof of concept by Computational Fluid Dynamics Modeling

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The location of the primary entry tear in acute type B aortic dissection affects early natural
Massimiliano M. Marrocco-Trischitta, Bartosz Rylski, Florian Schofer, Francesco Secchi, Gabriele Piffaretti, Hector de Beaufort, Viony Belvroy, Jean Bismuth, Martin Czerny, Santi Trimarchi.

261 TBD/IMH-B stratified according to Aortic Arch Classification. 8075 control cases were retrieved from ad hoc literature search provided 11 available studies. TBD/IMH-B 41.0% (107/261) prevalence of Type III arch compared to 15.5% (1257/8075) in controls (P<.001).

New Information from the IRAD Registry
IRAD General. Management and Outcome in pts with Arch Tear

Mortality

Management
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Conclusions

1. severe angulation and tortuosity
2. high pulsatile forces
3. Association type III arch and TBD/IMH occurrence?