

## Unexpected Giant Cell Arteritis and Aorta Aneurysm

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### Abstract

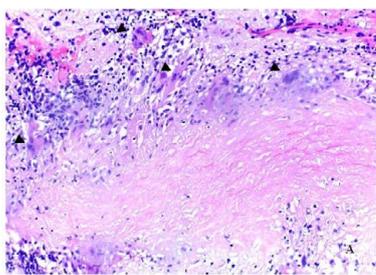
Aorta Aneurysms may range from asymptomatic to disabling or even fatal, thus requiring adequate and timely therapeutic approach. The aging of industrialized countries' population, due to the rise of life-expectancy, increased the degenerative causes of aneurysms. Yet, it is of major importance to search for other underlying pathologies; which, in the case of Giant Cell Aortitis may be diagnostic of an immunologic disorder with systemic involvement. Histopathological examination of surgical and/or post-mortem aorta specimens plays a relevant role in the etiopathogenic diagnosis. Unexpected extra-cranial involvement, namely of the aorta, may be diagnostic of Giant Cell Arteritis (*Horton's Disease*) and performed on histopathological examination of surgical and/or post-mortem specimens.

**Keywords:** Giant cell; Arteritis; Aorta; Aneurysm

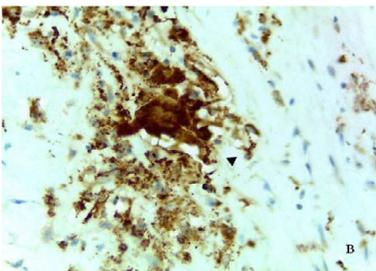
### Text

Aorta involvement in Giant Cell Arteritis (*Temporal Giant Cell Arteritis/Horton's Disease*) ranges 10-40%, usually affecting persons older than 50 years, more frequently females; like our hypertensive, with Menière Syndrome, 76 year-old female, submitted to cardiothoracic surgery due to thoracic ascending aorta aneurysm (diameter=6.5 cm) [1-4]. Histopathological examination of samples procured from the surgical specimen and stained with haematoxylin/eosin (HE) and special stains, namely elastic van Gieson (EvG), did not find an hypertensive-related degenerative aortopathy, but instead, an aortitis (Figure 1) with multinucleated histiocytic CD68 positive (Figure 2) giant cells, negative for microorganisms, destroying the tunica media (Figure 3) and containing elastic fibers' fragments (Figure 4), leading to the aortic wall structural damage and arterial dilatation. Adequate

diagnosis of unexpected non-classical cranial manifestations (like audio-vestibular Menière Syndrome) and extra-cranial Giant Cell Arteritis (like Aortitis) is relevant for the correct therapeutic strategy



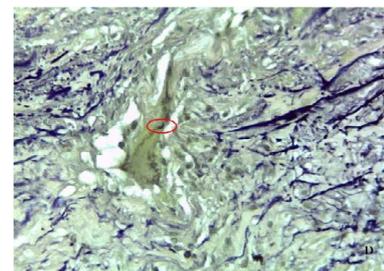
**Figure 1:** Histopathological features of *Giant Cell* (▶) *Aortitis* [A: HE x100].



**Figure 2:** The multinucleated cells (▶) are positive for histiocytic immunomarker [B: CD68 x200].



**Figure 3:** They destroy the tunica media framework [C: EvG x40].



**Figure 4:** Elastic fibers' fragments (red circle) [D: EvG x400].

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and follow-up, *in vivo* and, post-mortem, for the establishment of cause/manner of death [5-8].

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#### Conflict of Interest

The authors declare no financial interests or other conflict of interest in relation to the work submitted.

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