

<b>Case</b>	(479) Elucidating taxonomic concepts: mycotic aortic aneurysm or infected aortic aneurysm. what is the correct definition? about a case.
<b>Authors</b>	M. Ibarra Hernández, D. Vargas Jimenez, A. Pantiru, C. González Donadeo, J. Uzcategui León, M. Macía Fernández.
<b>Centre</b>	Hospital Universitario Clínico De Salamanca.

## CASE PRESENTATION

77 years-old-male, examined in the emergency department for fever, dysphagia and general deterioration with analytical criteria of sepsis.

Chest tomography was performed, showing dilation of descending aorta with mediastinal widening. The aneurysm was surrounded heterogeneous collection with air bubbles in its interior suggests diagnosis of mycotic aneurysm.

The patient present important clinical deterioration and dies at 12hours later. Reviewing the history of the patient presented a respiratory syncytial virus, arterial hypertension with minimal dilation of descending aorta and atheromatosis.

## DISCUSSION

A mycotic aortic aneurysm synonymously known as infected aortic aneurysm is defined as an infectious break in the wall of an artery with formation of a blind, saccular out pouching that is contiguous with the arterial lumen.

The term "mycotic aneurysm" is thus a misnomer for infection, and imprecise, while implicating a fungal genesis, which is extremely rare.

The term mycotic originates when William Osler(1885), described a patient with valve vegetations and 4 aortic aneurysms with morphological fungal resemblance.

According to the pathogenesis of the infection the concepts change; the primary infected arise from adjacent surrounding of pre-existing aortic aneurysms or post-traumatic false aneurysms a local extravascular infectious focus, may penetrate directly or via lymphatic tissue into the aorta, leading to necrosis of the wall, false aneurysm formation and subsequent rupture. Secondary infected arise from septic embolization, organisms may colonise the intact vascular wall through the vasa vasorum, which results in "Microbial arteritis" with aneurysm formation.

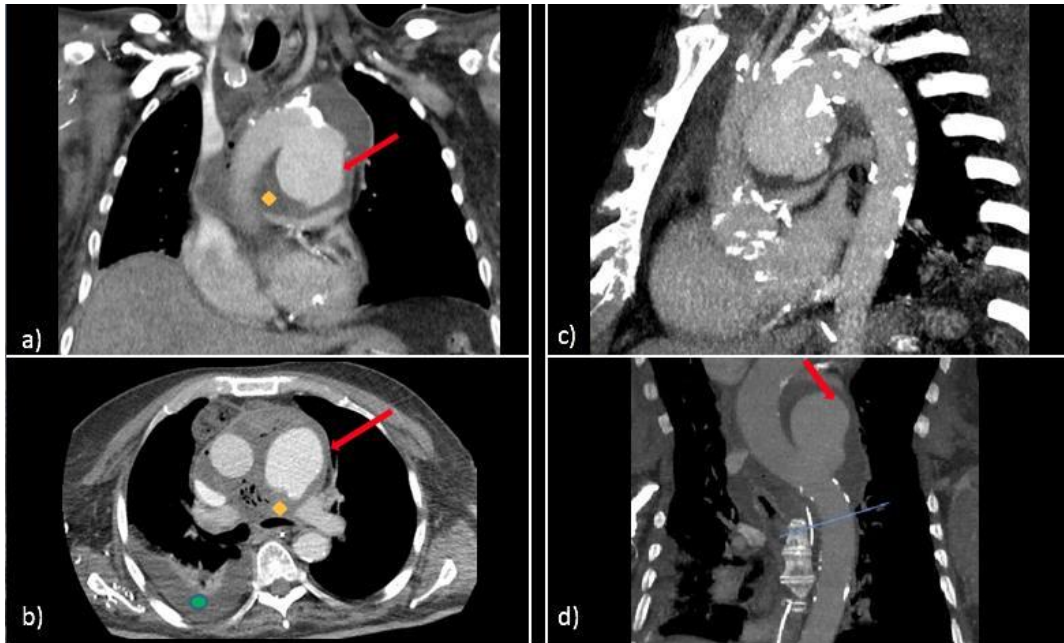
CT angiography is the current imaging modality of choice for the evaluation. Classic findings include periaortic edema fluid with thickening of the aneurysm wall and infiltration of the periaortic tissues.

The presence of gas bubbles, seen with certain bacterial infections, is diagnostic. The specific management of an infected aneurysm must be individualized and is dependent on the characteristics of the aneurysm, patient characteristics, and available expertise.

## CONCLUSION

The patient's clinical history is a key for the diagnosis and correct definition of the underlying disease. Familiarity with the imaging appearances of infected aneurysms should alert the radiologist to the diagnosis and permit timely treatment.

Given the patient's history and the findings the correct thing would be to use the concept of infected aortic aneurysm, the term 'mycotic' has always been a source of discussion and confusion and standardization of this terminology could be of help.



**Figure.1: Chest tomography: a) coronal b) sagittal c) axial and d) reconstruction showing dilation of descending aorta (red arrow) with mediastinal widening with heterogeneous collection with air bubbles in its interior (yellow triangle). a-c) Aortic atheromatosis. B) Pleural effusion (green circle). Diagnosis infected aortic aneurysm.**

## BIBLIOGRAPHY

- Laohapensang, K., Rutherford, R. B., & Arworn, S. (2010). Infected aneurysm. *Annals of vascular diseases*, 3(1), 16-23.
- Lee, W., Mossop, P., Little, A., et al. (2008). Infected (Mycotic) Aneurysms: Spectrum of Imaging Appearances and Management. *RadioGraphics* 2008; 28:1853–1868.
- Bisdas, T., Teebken, O., Mycotic or Infected Aneurysm? Time to Change the Term. *Eur J Vasc Endovasc Surg* (2011) 41, 570e572.