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# Spontaneous closure of an AV-fistula of the internal mammary artery

## Case report

A 31-year-old female with known Marfan-syndrome was admitted for diagnostic evaluation of suspected pulmonary embolism after spontaneous delivery. At this time a new systolic-diastolic murmur was recognised. CT scan revealed an arteriovenous (AV)-fistula between the left internal mammary artery and the left thoracic vein (fig. 1A). A second CT scan was performed four years later for reevaluation of the aortic valve and aortic diameter before elective aortic valve sparing operation for known aortic insufficiency. The AV-fistula was no longer detectable (fig. 1B).

Although an arteriovenous fistula of the mammary artery and the thoracic vein is a rare but well-known complication after median sternotomy for thoracic surgery, it is not reported to develop and close spontaneous as in our case. Since the last years more and more cases of iatrogenic aetiology of an AV-fistula have been reported. For this reason it is important to consider this differential diagnosis of a continuous parasternal murmur. However, in our patient with Marfan-syndrome the aetiology of the spontaneous appearance and closure remains elusive.

*Key words: aorta; arteriovenous fistula; mammary artery; thoracic vein*

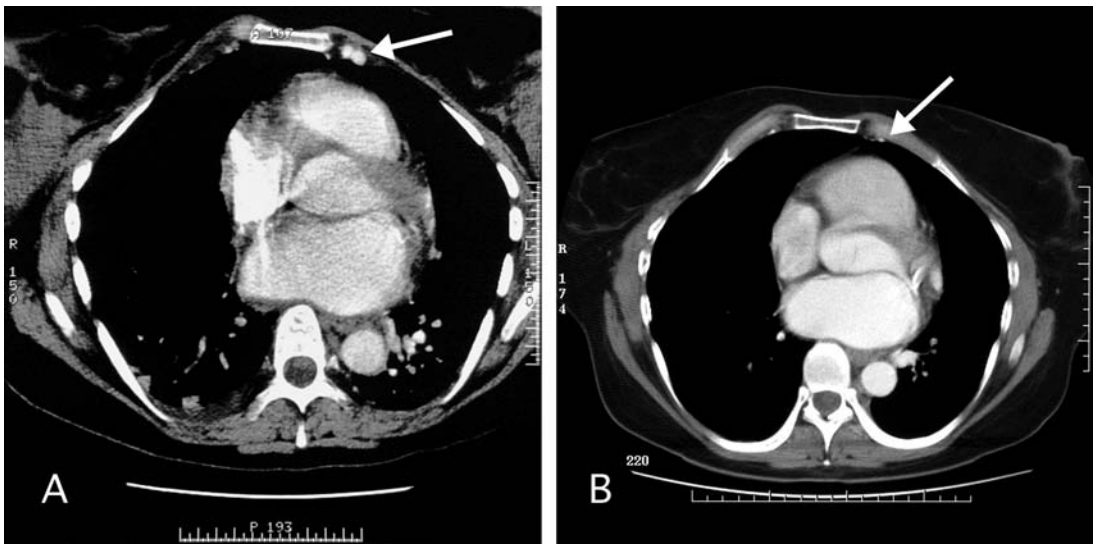



**Figure 1**
Axial contrast enhanced computer tomography scans of the thorax at the level of the aortic valve.
A A strong signal enhancement of the left mammary artery and the left thoracic vein is visible compared to the opposite site (arrow).
B The strong signal enhancement is no longer visible (arrow).

There is no conflict of interest.

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