Internal thoracic artery pseudoaneurysm after coronary artery bypass

Pseudo-anévrisme de l’artère thoracique interne après pontage aorto-coronaire

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Left internal thoracic artery (LITA) pseudoaneurysm after coronary artery bypass graft is a rare complication. We report a case of LITA pseudoaneurysm after minimally invasive direct coronary artery bypass (MIDCAB) in a 79-year-old man who developed severe respiratory distress caused by haemoptysis.

The patient had a medical history of pneumoconiosis. One year earlier, he had a MIDCAB through a left mini-anterolateral thoracotomy for left anterior descending coronary artery stenosis. An emergency thoracic computed tomography scan showed an intrathoracic pseudoaneurysm of the LITA, 4.3 cm in maximal diameter, compressing the adjacent lung parenchyma (Fig. 1B, C). An emergency left subclavian arteriogram showed a fusiform pseudoaneurysm of the LITA, connecting with the bronchial artery via multiple collateral vessels (Fig. 1D).

Abbreviations: LITA, left internal thoracic artery; MIDCAB, minimally invasive direct coronary artery bypass.

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Figure 1. Internal thoracic artery pseudoaneurysm before embolization. A. Chest X-ray showing bilateral patchy densities and honeycomb appearance attributable to pneumoconiosis. B, C. Contrast-enhanced thoracic computed tomography (CT) scan images. D. Left subclavian angiogram. B–D. White arrows indicate the pseudoaneurysm and yellow arrows indicate the left internal thoracic artery. D. Black arrows indicate multiple collateral vessels.

Figure 2. Thrombosed and excluded pseudoaneurysm after endovascular embolization. A. Chest X-ray showing multiple coils along the internal thoracic artery. B, C. Contrast-enhanced thoracic computed tomographic scan showing that the left internal thoracic artery is not seen after embolization (white arrows indicate completely thrombosed pseudoaneurysm). D. Completion angiogram after embolization showing successful exclusion of the pseudoaneurysm from the internal thoracic artery.
First, percutaneous coronary stenting was done for the left anterior descending artery lesion. Next, endovascular coiling for the LITA pseudoaneurysm was performed. The completion angiogram showed successful exclusion of the LITA pseudoaneurysm (Fig. 2D). A follow-up computed tomography scan showed successful thrombosis of the LITA pseudoaneurysm (Fig. 2C, D). The patient was discharged on the seventh postprocedural day without haemoptysis or any other symptoms of myocardial ischaemia.

Disclosure of interest
The authors declare that they have no conflicts of interest concerning this article.