Postoperative mediastinal lipomatosis

Lipomatose médiastinale post-opératoire

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A 53-year-old male smoker with high-blood pressure and a family history of coronary-artery disease, but who was not overweight, was hospitalized for non-ST-elevation acute-coronary syndrome. The initial chest X-ray showed merely a small widening of the anterior and superior mediastinum (Fig. 1). The patient underwent coronary angiography under glycoprotein IIb/IIIa inhibitor therapy, which revealed two lesions: a tight stenosis (90%) in the proximal-anterior interventricular branch of the left coronary artery and a lesion in the right coronary-artery (70%). We decided to perform double coronary artery bypass graft. The follow-up was incidence-free. It must be pointed out that the patient had never been treated with glucocorticoids.

Two months after the intervention, the patient consulted again for atypical chest pain with neither modification of the electrocardiogram nor a rise in troponin level. Chest X-ray (Fig. 2) revealed superior-right mediastinal enlargement and a right mediastinal mass with smooth borders (initially suggesting aneurismal-aortic dilation or aortic dissection). An emergency chest angioscan was performed. The examination ruled out aortic dissection and revealed a regular-shaped mass of homogeneous density, close to −100 Hounsfield units, confirming a diagnosis of anterior-mediastinal nodular lipomatosis, very probably secondary to the recent surgery. Transthoracic echocardiography revealed a 9-mm-thick pericardial effusion, the source of the chest pain. This was treated medically with total relief of the patient’s symptoms.
Figure 1. Preoperative and postoperative chest X-rays. Arrows indicate the borders of the mediastinal mass.

Figure 2. Chest computed-tomography scan showing the smooth homogeneous mass in the right-anterior mediastinum, corresponding to hypertrophy of adipose tissue (indicated by the arrows).

Discussion

This is only the third published case of mediastinal lipomatosis appearing in the absence of excess endogenous or exogenous steroids or obesity. In this context, the question arises as to whether the bypass surgery played a role in the appearance, or at least in the increase, of this lipomatosis. Indeed, postoperative or even post-traumatic retroperitoneal lipomatosis has been described and some researchers are studying the role of adipokines in these changes. One case involving the development of lipomas on a surgical wound following radial saphenectomy has also been described. Despite the fact that no previous case of postoperative mediastinal lipomatosis has been published in the literature, the same hypothesis as that for retroperitoneal lipomatosis can be expressed.