Pulmonary artery dissection as a rare complication of pulmonary hypertension

Hypertension artérielle pulmonaire compliquée d’un cas exceptionnel de dissection pulmonaire

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We report the case of a 57-year-old woman treated with furosemide, spironolactone and fluindione for primary pulmonary hypertension. Two days before hospitalization, she complained of cough and severe anterior chest pain radiating to the upper back and epigastria. Her clinical presentation at admission was consistent with refractory cardiogenic shock. Conventional chest X-ray was unremarkable except for an uncommon cardiomegaly; the diagnosis of tamponade was made by echocardiography. Enhanced CT scan showed a localized intimal flap in the proximal right pulmonary artery. The partition between the true and false channels was immediately enhanced by contrast. The pulmonary artery trunk was dilated as a consequence of chronic overloading. Secondary findings were mediastinal and pericardial haematoma. The aorta was normal.

PAD is very rare, with only 64 cases reported. It occurs in the third and the sixth decades with higher prevalence in women. PAD usually happens in a chronically overloaded pulmonary artery and is often illustrated in Eisenmenger syndrome. The reason for wall rupture is unknown but post-mortem histological findings are similar to those reported in atherosclerosis. The presence, location and extent of an intimal flap may be readily determined with helical CT. The dissection is usually limited to the pulmonary trunk but sometimes extends to the subsegmentary branches or aorta. With a mortality of 80\% within hours of diagnosis, the management of PAD is today unknown (Figs. 1–5).

Abbreviations: CT, computed tomography; PAD, pulmonary artery dissection.
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Figure 1. Echocardiographic findings, showing an important pericardial effusion and right ventricular collapse.

Figure 2. Pericardiocentesis with pigtail catheter visible on the computed tomography scan; there is residual pericardial effusion.

Figure 3. Pericardiocentesis with pigtail catheter visible on the computed tomography scan.

Figure 4. Haemomediastinum visible on the computed tomography scan.

Figure 5. Important trunk dilatation of the pulmonary artery. Intimal flap in the proximal right pulmonary artery.

In conclusion, PAD must be ruled out by enhanced CT scan in patients with pulmonary hypertension presenting with acute chest pain.

Disclosure of interest

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