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Telangiectatic pulmonary arteriovenous malformation presenting as a suspected malignant part-solid nodule

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A 55-year-old woman with a recent history of COVID-19 presented with cough, fatigue and dyspnoea. An unenhanced chest computed tomography scan showed an irregular, part-solid nodule, which was suspected to be malignant. It had internal linear structures that might indicate the feeding artery and draining vein in the middle lobe. Dynamic contrast-enhanced chest computed tomography revealed the feeding artery and a drainage vein belonging to the nodule with a prominent nidus, consistent with telangiectatic pulmonary arteriovenous malformation (Figures 1a–d).

Telangiectatic pulmonary arteriovenous malformation is an abnormal telangiectatic vascular connection between the pulmonary artery and vein. These are usually seen in patients with hereditary haemorrhagic telangiectasia and are one of the rarest forms of pulmonary arteriovenous malformations (Raptis et al, 2022). Diagnosis is based on detecting a feeding artery, a draining vein and an enhancing nidus within an area of ground-glass opacity that represents microscopic telangiectasia (Kolarich et al, 2021). Radiologists and clinicians should be familiar with the imaging features of telangiectatic pulmonary arteriovenous malformation to prevent unnecessary invasive procedures.

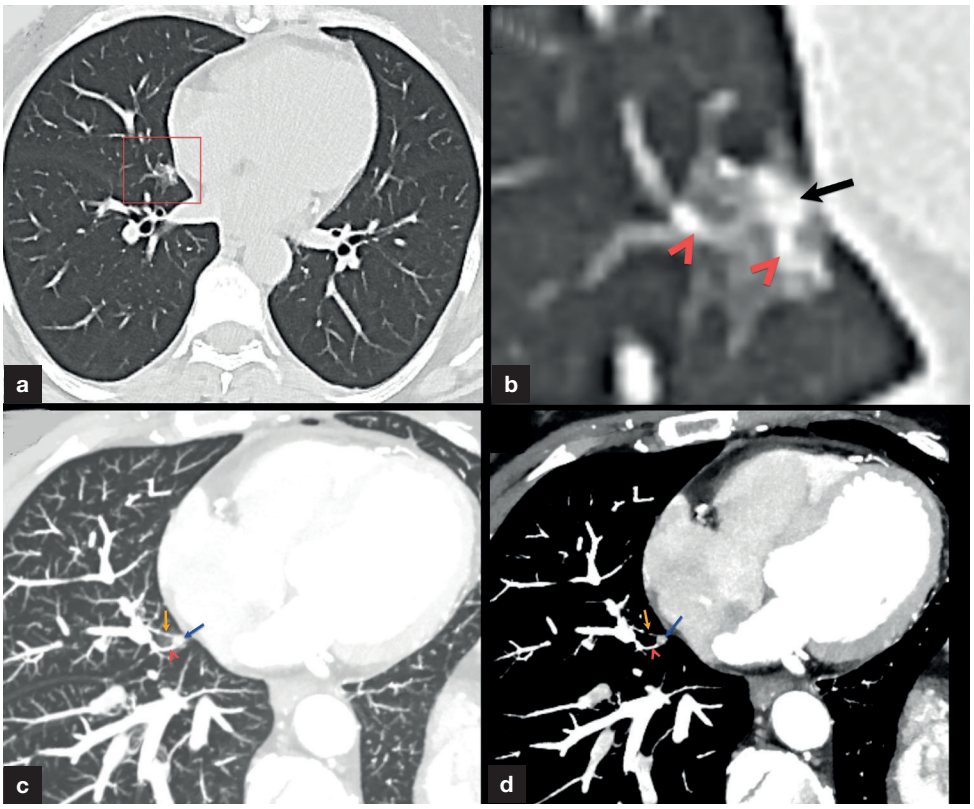

Figure 1. a. Axial unenhanced chest computed tomography image with lung window settings shows an irregular, malignancy suspicious part-solid nodule in the right middle lobe (red rectangle). b. The magnified image of the nodule shows the part-solid nodule with linear structures that may indicate the feeding artery and draining vein (arrowheads) and nidus (arrow). Axial dynamic contrast-enhanced computed tomography image with maximum intensity projection on (c) lung window and (d) mediastinum window settings demonstrate the feeding artery (red arrowheads), a drainage vein (orange arrows), and prominent nidus (blue arrows) belonging to a part-solid nodule indicates telangiectatic pulmonary arteriovenous malformation.

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