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| Case | (323) Perfusion defects in pulmonary embolism with dual energy cta |
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CASE PRESENTATION

A 74-year-old woman came to the Emergency Department with breathlessness that had worsened in the last days. She referred left hemithorax pain and left lower limb paresthesia in the last 3 days. No other background of interest.

Physical examination: crackles in the left lung base. Pitting edema in left lower limb. Other irrelevant.

Investigations: leukocytosis with neutrophilia (14000/microL), increased CRP (6.9 mg/dL), D-dimer 5490 ng/mL. Oxygen saturation was 99%. CTA of the pulmonary arteries is requested to evaluate acute pulmonary embolism (APE). Dual-Source-DualEnergy CTA is performed with the following findings: filling defect in the main pulmonary artery extended from its bifurcation towards lobar, segmental and subsegmental branches bilaterally, lung consolidation area in left lower lobe and multiple perfusion defects in the iodine map in both lungs.

DISCUSSION

The diagnosis was APE with infarction in left lower lobe. The iodine map allows us to appreciate the true extension of the affected lung tissue, which does not show appreciable changes in the baseline study. When there are only distal small-sized obstructive clots that may go unnoticed, these perfusion defects may guide the radiologist to a more accurate search of the embolus.

CONCLUSION

: Dual-Energy CTA provides both anatomical and lung perfusion information and improves diagnostic accuracy and the prognosis value.



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