Transient reverse ventilation-perfusion mismatch in acute pulmonary nitrofurantoin reaction

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A 67-yr-old woman with a history of myocardial infarct was admitted to emergency for marked dyspnea, nonproductive cough, nausea and fever. The thorax X-ray revealed a bilateral alveolar and interstitial infiltration pattern with basal accentuation. The cardiac examinations were normal. Technegas ventilation and Tc-99m-macroaggregated albumin (MAA) perfusion scans were performed to rule out pulmonary embolism. Bilateral multiple ventilation defects with normal perfusion was observed. The patient had been taking nitrofurantoin for four days for a bladder infection. Hypersensitivity to nitrofurantoin was suspected and the drug was discontinued. An antihistaminic and anxiolytic medication was started. The majority of the clinical symptoms disappeared within 24 hours. The control chest X-rays disclosed a marked improvement. Ventilation and perfusion scans obtained 48 hours after nitrofurantoin withdrawal were normal. The drug-related pulmonary reactions should be taken into account in patients on medication. Reversible ventilation defects can be the only lung-scintigraphic finding encountered in acute pulmonary nitrofurantoin reaction.

Key words: acute pulmonary nitrofurantoin reaction, lung scintigraphy