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CT-Scan Transition of Pulmonary Edema Due to Water-Soluble Paint Inhalation

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Abstract : Introduction: We experienced a massive disaster due to inhalation of water-soluble paint. Sixteen patients were brought to our emergency room, and pulmonary edema was revealed on the CT images of 12 cases. Purpose: Transition of chest CT-scan findings in cases with pulmonary edema was examined. Method: CT-scans were performed on the 1st, 2nd, 5th, and 19th days after the inhalation event. Patients whose pulmonary edema showed amelioration or exacerbation were classified into the improvement or the exacerbation group, respectively. Those with lung edema findings appearing at different sites after the second day were classified into the changing group. Results: Eight, one and three patients were in the improvement, exacerbation and changing groups, respectively. In all cases, the pulmonary edema had disappeared from CT images on the 19th day after the inhalation event. Conclusion: Inhalation of water-soluble paints is considered to be relatively safe. However, our observations in these emergency cases suggest that, even if pulmonary edema is not severe immediately after the exposure, new lesions may appear later and existing lesions may worsen. Follow-up imaging is thus necessary for about two weeks.

Keywords : CT scan, intoxication, pulmonary edema, water-soluble paint
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