E-cigarette and Vaping-associated Lung Injury

What's Lurking Inside!

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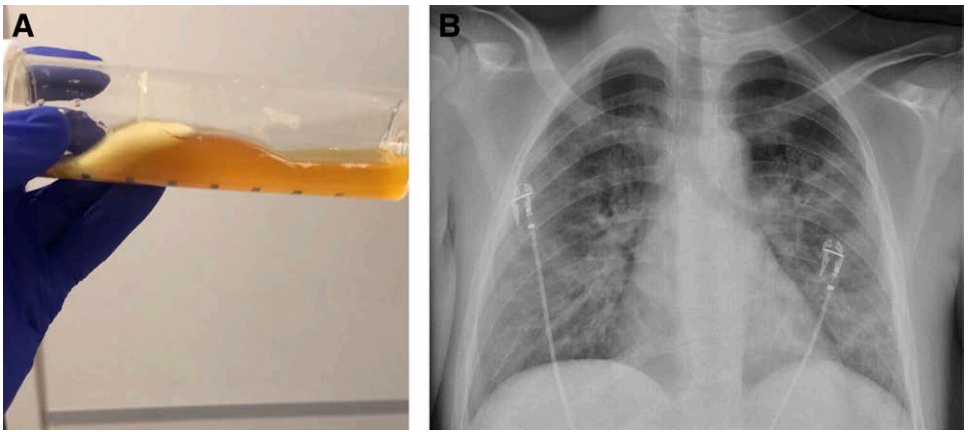

Image *A* shows bronchoalveolar lavage fluid from an intubated patient with severe lung injury due to electronic cigarette and vaping-associated lung injury which required extracorporeal support. Note the congealed mass, which based on color and viscosity likely represents bronchial deposits of vitamin E acetate.

Vitamin E acetate in bronchoalveolar lavage fluid has been identified by investigators at the Centers for Disease Control and Prevention as a potential cause of the acute lung injury in critically ill patients with electronic cigarette and vaping-associated lung injury.[1] Vitamin E acetate is a known diluent in nonregulated and illicit tetrahydrocannabinol, the psychotropic agent in marijuana–vape cartridges. Vitamin E acetate has gained popularity as an additive since late 2018 because of its color and viscosity, which mimic that of tetrahydrocannabinol. In contrast, vitamin E acetate has not been found in nicotine vape cartridges.[2]

Respiratory complaints are the most common presenting symptoms, and nearly half of all patients with electronic cigarette and vaping-associated lung injury require critical care for respiratory failure. The chest x-ray in image *B* demonstrates basilar consolidation and ground glass opacity in a patient with electronic cigarette and vaping-associated lung injury.[1] Research into the optimal clinical care of patients with electronic cigarette and vaping-associated lung injury is ongoing, but current clinical management guidelines for these high-risk patients have been published recently by Dodick and Greenberg for the Anesthesia Patient Safety Foundation.[3]

Competing Interests

The authors declare no competing interests.

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