

# Vaping Induced Lung Injury

Mohamed Abdelbaky, MD¹, Christian Toquica, MD², Amar Bukhari, MD³

Saint Peter's University Hospital/Robert Wood Johnson Medical School



# Background

As of February 2020, the CDC announced an outbreak of lung injury associated with the use of ecigarette or vaping products, with a total of 2,807 hospitalized cases or deaths reported in all 50 U.S. states. With this increasing concern, it is crucial for clinicians to be aware of this serious and potentially lethal disease.

## **Case description**

32-year-old male with no previous medical history and no underlying lung disease but reported a recent history of vaping. On admission, the patient did not have any respiratory symptoms. Chest x-ray showed a mild patchy left basilar opacity. On the third day of his admission, the patient started to experience mild shortness of breath on exertion. He required HFNC to maintain O2 saturation of 95%. CT chest revealed extensive bilateral patchy glass opacities and repeat chest x-ray demonstrated diffuse bilateral interstitial opacities. Two blood cultures, a sputum culture, and a respiratory viral panel were all negative. The patient's clinical picture was suggestive of vaping-induced lung injury. He was admitted to the ICU and was started on steroids. The patient continued to improve and later was downgraded to the medical floor. He was discharged after 11 days in the hospital on taper dose steroids.

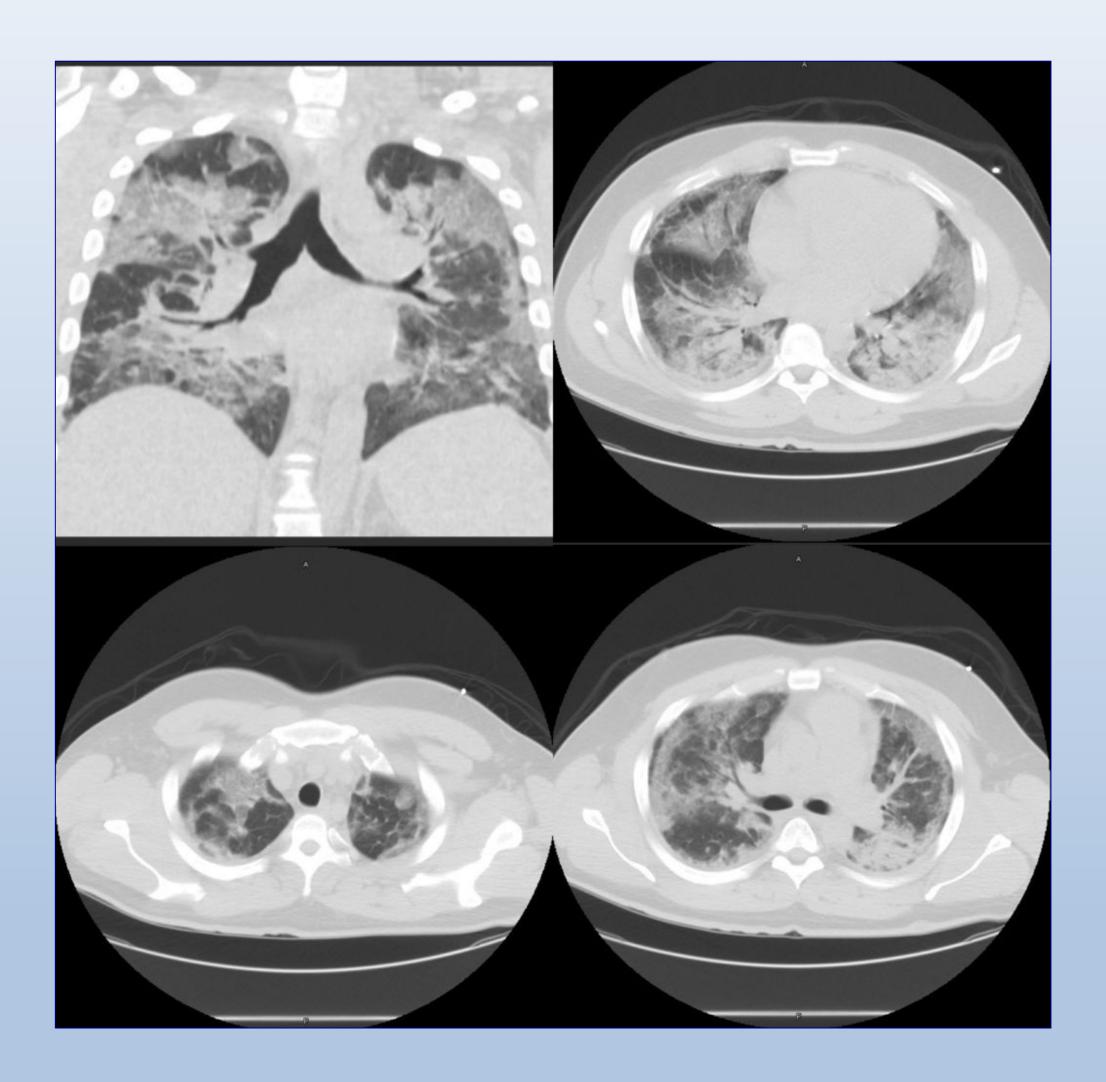


Fig.1. Computer tomography (CT) images showing ground glass opacities

### **Conclusions**

This case of vaping-induced lung injury adds to the current literature descriptions of similar condition and emphasizes the necessity for clinician awareness of vaping history when ruling out causes of dyspnea. Additional research is required to elucidate the risks and long-term health effects of vaping.

# References

Cherian SV, Kumar A, Estrada-Y-Martin RM. E-Cigarette or Vaping Product-Associated Lung Injury: A Review. Am J Med. 2020 Jun;133(6):657-663. doi: 10.1016/j.amjmed.2020.02.004. Epub 2020 Mar 13. PMID: 32179055

Doukas SG, Kavali L, Menon RS, Izotov BN, Bukhari A. E-cigarette or vaping induced lung injury: A case series and literature review. Toxicol Rep. 2020 Oct 3;7:1381-1386. doi: 10.1016/j.toxrep.2020.09.010. PMID: 33102141; PMCID: PMC7577885..

#### Disclosures

The authors have no disclosure