INTRODUCTION

- Vaping-associated pulmonary injury (VAPI) is associated with severe and often life-threatening respiratory failure and frequently mistaken for common pulmonary illnesses such as bacterial pneumonia or COVID-19 infection.
- The rarity of this disease poses significant challenges to timely diagnosis and management especially in the current era of COVID-19 pandemic.

CASE PRESENTATION

- A 43-year-old male presented with progressively worsening dyspnea, productive cough of rusty sputum, and high-grade fever for 2 weeks.
- He was admitted for acute hypoxic respiratory failure, and quickly moved to the critical care unit due to rapidly declining status.
- Initial workups were significant for elevated CRP and procalcitonin, and acute HIV infection were also considered, however, this was also ruled out.
- Given his history of incarceration and homelessness, tuberculosis was also likely but all testing was negative.
- Other plausible causes of his illness including autoimmune diseases, fungal infections, and acute HIV infection were also explored, but all were eventually ruled out.

CASE PRESENTATION

- Upon further investigation of his social history, it was discovered that he has been vaping on daily basis for many months.
- He was started on high-dose intravenous steroids and experienced marked clinical improvement within a few days.
- Mechanical ventilation was avoided and eventually he was discharged home without need for any oxygen support.

DISCUSSION

- Vaping is the process of inhaling an aerosol created by heating a substance such as nicotine or tetrahydrocannabinol (THC) with a battery-operated electronic device such as an electronic cigarette (e-cigarette).
- Systemic glucocorticoids have been used in a majority of patients with EVALI, but the efficacy has not been well-studied. In our case, the initiation of high-dose systemic steroids brought about drastic clinical improvement.

CONCLUSION

- Substances-induced lung injury is under-diagnosed and often mimics many common infections.
- This particular case underscores the importance of a detailed history including frequently-overlooked social habits in diagnosing patients with diseases of uncommon etiologies.

REFERENCES


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