

Epiglottitis case: A unique presentation of COVID-19 infection

Introduction: Epiglottitis is a known life-threatening cause of airway obstruction that has numerous infectious and non-infectious etiologies. Here, we present the first case of COVID-19 induced acute epiglottitis in adults found in the literature.

Clinical presentation: A 26-year-old non-smoker female, recently diagnosed with COVID-19 by PCR, who presented to the ED complaining of progressive sore throat and hoarseness of voice for one day. No significant past medical history. Initial vitals were unremarkable apart from mild sinus tachycardia of 98 bpm. Physical examination was significant for mild posterior oropharyngeal erythema with no exudates and mild inspiratory stridor. Lung exam and lab results were unremarkable. Lateral neck X-ray showed thickening of the epiglottis (figure 1). Chest x-ray showed mild bilateral perihilar peribronchial thickening (figure 2). A bedside flexible bronchoscope demonstrated slightly edematous epiglottis and tongue base with moderate arytenoid edema and intact vocal cords. In the ED, the patient received a one-time dose of racemic epinephrine aerosol (2.25 % 0.5 mL), oral prednisone, and IV ampicillin-sulbactam. Oral prednisone and IV ampicillin-sulbactam were continued after admission to ICU. Respiratory panel, blood and throat cultures were negative. The patient improved clinically and was discharged home after two days with a five day course of oral prednisone and amoxicillin. Symptoms resolved completely after one week.

Discussion: Since the identification of the novel coronavirus, literature has been continuously identifying different forms of infection, ranging from asymptomatic (1) to a life-threatening infection (2). One of the life-threatening presentation which has not been reported before is epiglottitis. Our case is the first report of COVID-19 induced epiglottitis and provides insight into the diagnosis and management of this unique presentation of COVID-19. Direct visualization remains the gold standard in the diagnosis of epiglottitis, early use of steroid and racemic epinephrine successfully led to a dramatic improvement clinically, in addition to antibiotic for possible 2ry bacterial infection.

Conclusion: COVID-19 is a potential cause of life-threatening acute epiglottitis. Early suspicion and direct visualization of the epiglottis is the key to success for early management. Steroid and racemic epinephrine could be of high benefit.

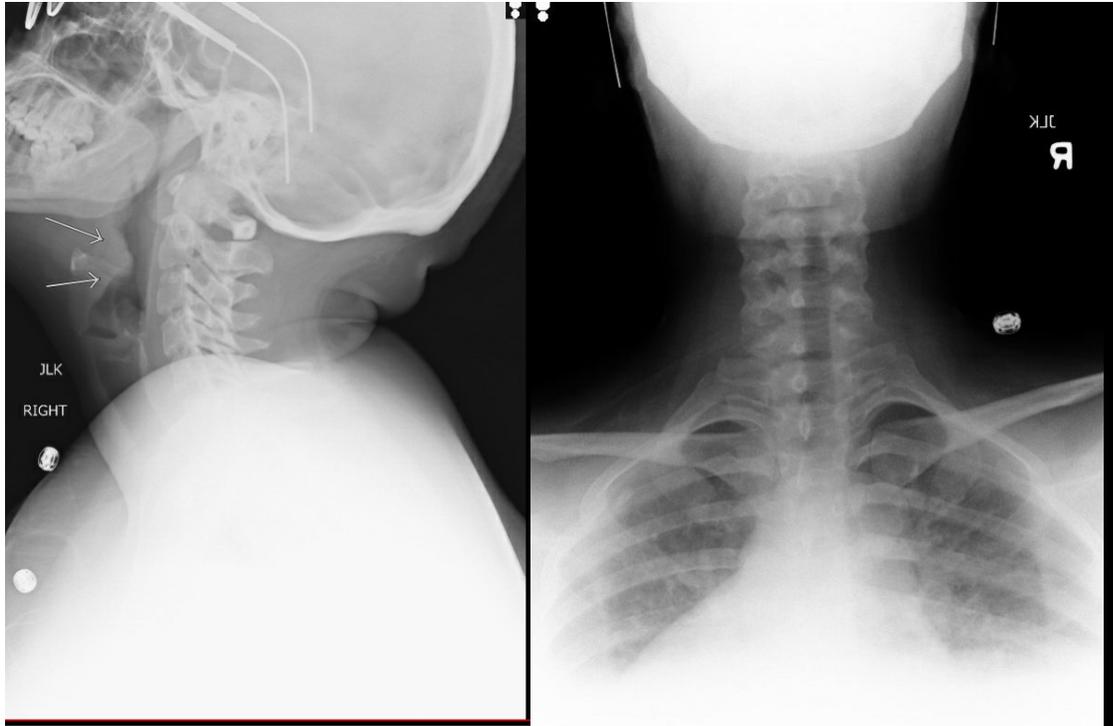


Figure 1: 1: Radiography of lateral soft tissue neck demonstrating thumb sign – narrowing of airway

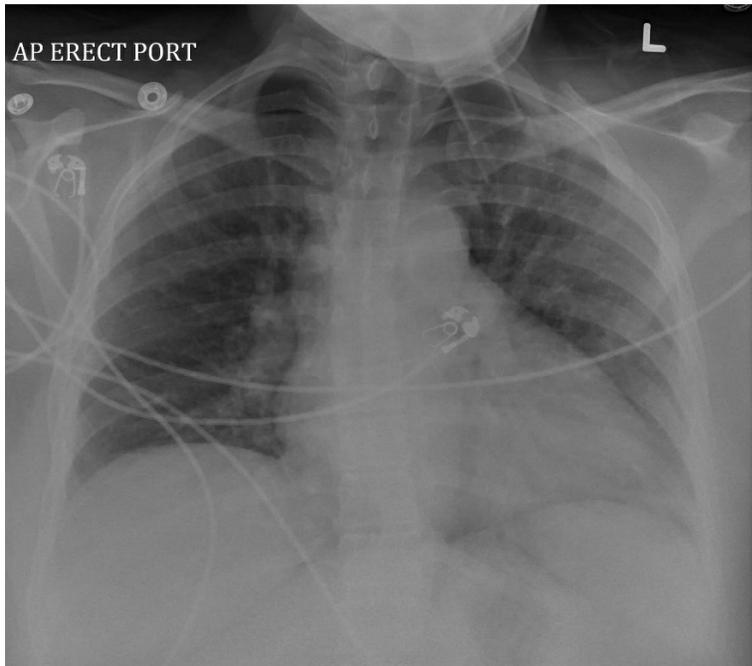


Figure 2: Chest x-ray demonstrating mild perihilar peribronchial thickening

Resources

1. A familial cluster of pneumonia associated with the 2019 novel coronavirus indicating person-to-person transmission: a study of a family cluster. Chan JF, Yuan S, Kok KH, To KK, Chu H, Yang J, Xing F, Liu J, Yip CC, Poon RW, Tsoi HW, Lo SK, Chan KH, Poon VK, Chan WM, Ip JD, Cai JP, Cheng VC, Chen H, Hui CK, Yuen KY Lancet. 2020;395(10223):514. Epub 2020 Jan 24
2. Presenting Characteristics, Comorbidities, and Outcomes Among 5700 Patients Hospitalized With COVID-19 in the New York City Area. Richardson S, Hirsch JS, Narasimhan M, Crawford JM, McGinn T, Davidson KW, and the Northwell COVID-19 Research Consortium, Barnaby DP, Becker LB, Chelico JD, Cohen SL, Cookingham J, Coppa K, Diefenbach MA, Dominello AJ, Duer-Hefele J, Falzon L, Gitlin J, Hajizadeh N, Harvin TG, Hirschwerk DA, Kim EJ, Kozel ZM, Marrast LM, Mogavero JN, Osorio GA, Qiu M, Zanos TP. JAMA. 2020;