Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Letter to Editor

Comment on: COVID-19 presenting as acute epiglottitis: A case report and literature review

To the Editor,

We read with great interest an article by Dr. Iwamoto and colleagues [1] for sharing their 7th case report of acute epigloittis with COVID-19 patient during COVID-19 period [1]. Acute epiglottiits is a life-threatening infectious disease of the epiglottis and supraglottic structures, and potentiality for complete upper airway obstruction which can be relieved by endotracheal intubation or sometime by emergent tracheostomy at the emergency department. In their case, the symptoms improved after administration of antibiotics (sulbactam sodium/ampicillin sodium), steroids (dexamethasone), and favipiravir. The patient developed a high fever on the sixth day of hospitalization, and pneumonia was identified on CT. We agree that the onset of acute epiglottitis also preceded pneumonia owing to secondary bacterial infections of COVID 19. Thus, these laryngeal findings may be associated with a COVID-19 diagnosis before the onset of pneumonia. We noticed previous cases of acute epiglottitis associated COVID 19 were adult patients, but not children. Because of recent epidemiological studies have recorded a decline in the incidence of epiglottitis in children since the introduction of general vaccination against *Haemophilus influenzae* type B (HiB) [2,3], but because most adults have not been immunized with that vaccine, they are still susceptible and may experience acute epiglottitis [3,4]. Rather than true infectious epiglottitis, COVID-induced angioedema may offer an alternative explanation for the airway swelling observed in this patient. Angiotensin converting enzyme (ACE) is responsible for degrading bradykinin; the peptide thought to cause angioedema [5]. Use of ACE inhibitor medications in susceptible individuals may cause angioedema of the face and larynx, leading to respiratory compromise, not unlike epiglottitis. COVID-19 viral glycoproteins bind to ACE2 receptors in the airway, causing downregulation of the ACE protein, leading to angioedema through the same mechanism [6]. It is important for emergency physicians to maintain high clinical suspicion for acute epiglottitis with or without COVID-19 infection which is potentially life-threatening condition. Undoubtedly, rapid recognition and securing the airway is the most critical life-saving management at emergency. Appropriate antibitoics and steroid administration with early consultation to ENT for laryngeal findings are mainstays of the following therapy in order to reduce morbidity and mortality.

Disclosure statement

The other authors have no example conflicts of interest to disclose and no any financial support.

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