

Visual Journal of Emergency Medicine

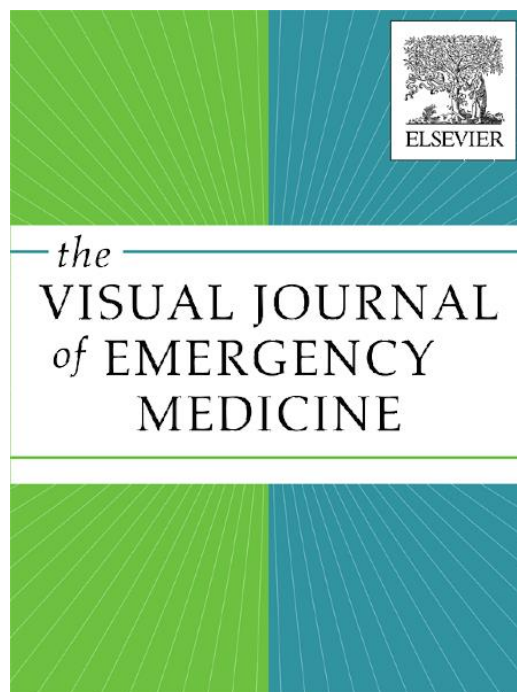
A peri-arrest man in emergency department: an atypical presentation of acute epiglottitis

--Manuscript Draft--

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The Visual Journal of Emergency Medicine

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1. Article Title

A peri-arrest man in emergency department: an atypical presentation of acute epiglottitis

2. Author(s)

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3. Keywords

Acute epiglottitis; Flexible nasolaryngoscopy; Cricothyroidotomy

4. Discussion

Acute epiglottitis is an uncommon but rapidly life threatening disease. The classical signs of fever, tripod posture and stridor may not be always present. Emergency physicians need to be highly vigilant when they encounter patients with severe odynophagia, especially if there is local tenderness or swelling over the anterior neck. In our article, we presented a beautiful clinical picture of grossly swollen epiglottitis with pinhole airway. The patient had atypical presentation of acute epiglottitis and developed respiratory arrest just before further investigation. Our case had demonstrated the diagnostic value of flexible nasolaryngoscopy for suspected cases at emergency department. Finally, emergency physicians must be well-trained to perform the cricothyroidotomy, the rarely done but lifesaving procedure.

5. Visual Case Discussion

A 66-year-old gentleman presented to the Emergency Department (ED) with 2-day history of sore throat without fever, odynophagia nor dyspnoea. He was a smoker with known history of hypertension, hyperlipidemia and untreated diabetes mellitus (DM). Physical examination

revealed an afebrile, ambulatory patient with normal vital signs who spoke complete sentence without hoarseness; however, there were mild tenderness over anterior neck and bilateral tonsillar exudates. While patient was waiting for neck x-ray, he suddenly developed generalized seizure and stridor. His oxygen saturation dropped to 60% despite high flow oxygen. Emergency cricothyroidotomy was performed, followed by flexible nasolaryngoscopy that showed a severely swollen epiglottis with pinhole airway (Figure 1). Tracheostomy was performed and he was further managed in intensive care unit. He was started on ceftriaxone and metronidazole. Tissue culture grew Streptococcus, gram-positive bacilli and Neisseria species. Patient gradually improved with tracheostomy decannulated and he was discharged on Day 14.

6. Caption for Image(s) or Video(s)

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Figure 1. A severely swollen epiglottis with pinhole airway
(Suppl.) A severely swollen epiglottis with pinhole airway

7. References

Ng HL et al. Acute epiglottitis in adults: a retrospective review of 106 patients in Hong Kong. Emerg Med J. 2008 May;25(5):253-5. doi: 10.1136/emj.2007.050153.

8. Questions and Answers with a Brief Rationale

Question 1

Question Type: multiple choice

Question Text: Which patient has the highest risk developing acute epiglottitis?

Answer Options

- a) 3 years-old boy who has up-to-date vaccination
- b) 13 years-old girl who completed 5 days of steroid for her asthmatic attack
- c) 45 years-old man, active smoker, recently diagnosed chronic obstructive pulmonary disease (COPD)
- d) 60 years-old man who has poorly controlled DM
- e) 80 years-old woman who has congestive heart failure

Correct Answer = d

Explanation: Patient with poorly controlled diabetes mellitus are susceptible to infection. In the population based study stated below, pre-existing DM significantly increases risk of developing acute epiglottitis (adjusted OR 1.42, 95% CI 1.15-1.75; p = 0.004).

- Tsai YT et al. Risk of acute epiglottitis in patients with preexisting diabetes mellitus: A population-based case-control study. PLoS One. 2018 Jun 11;13(6):e0199036. doi: 10.1371/journal.pone.0199036

Question 2

Question Type: True or false

Question Text: Which of the following statements are true/ false?

Answer Options

- a) Patient with acute epiglottitis must present with fever and odynophagia.
- b) Patient with acute epiglottitis must have hot potato voice.
- c) We should always palpate the anterior neck for local tenderness and swelling.
- d) Flexible nasolaryngoscopy is feasible and beneficial to ED practice.
- e) We should wait for surgeon to come to ED to perform the cricothyroidotomy.

Correct Answer = F/ F/ T/ T/ F

Explanation

- a) In our case, patient did not present with fever nor odynophagia.
- b) In our case, patient did not have hot potato voice.
- c) Palpating the anterior neck gives us important tactile information to detect significant pathology.
- d) Flexible nasolaryngoscopy provides excellent images to facilitate communication between team members in ED and between different departments during case handover.
- e) It is too late to wait for surgeon to come, every second counts!


9. Conflict of Interest

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Video

Figure 1. A severely swollen epiglottis with pinhole
airway.MP4



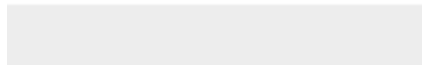
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