Epiglottic Abscess: A Rare Cause of Odynophagia

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SUMMARY

Epiglottic abscess is rare sequelae of acute epiglottitis. It occurs commonly in adult although acute epiglottitis commonly occur in children. The presentation includes fever with odynophagia. The diagnosis is based on high index of suspicion especially when oral examinations reveal normal findings. We report a case of adult epiglottic abscess which was treated with incision and drainage. The outline of management was discussed.

KEY WORDS:
Epiglottis, abscess

INTRODUCTION

Acute epiglottitis is more commonly seen in children less than 6 years of age, although this entity has also been well described among adults[1]. One of the sequelae of suboptimally treated epiglottitis is the development of abscess. Thus the number of epiglottic abscesses should be expected to increase concomitantly with the rise in the incidence of acute epiglottitis. Owing to its anatomical location, the mortality rate is as high as 30 percent[2].

CASE SUMMARY

A 42-year-old Malay male, an army pensioner presented with history of five days duration of high grade fever associated with severe odynophagia. Initially, he was able to take orally for the first two days of the fever. On the third day of the illness, the odynophagia which was increasing in nature had made him unable to tolerate orally. He was unable to swallow even his saliva. He also noticed the presence of pus mixed with his saliva whenever he spitted. He went to seek medical attention from a district hospital in which he was admitted and started on intravenous antibiotics. He was referred to our centre on the next day for further management.

On further questioning, there was no history of trauma and no history suggestive of foreign body ingestion. He was non-diabetic. There was no difficulty in breathing and he was able to sleep supine with one pillow. On examination, patient was a medium-built man, sitting comfortably on his bed. He was not in respiratory distress and was not dehydrated. He was breathing normally without stridor. He spoke with muffled 'hot potato' voice.

Vital signs showed normal findings including temperature. Oral cavity and oropharyngeal examinations were normal. There was no evidence of peritonsillar mass, no medialization of the lateral pharyngeal wall and no fullness of the retropharyngeal area. On laryngeal examination, the epiglottis was diffusely swollen with whitish spots seen on its surface. There was marked pooling of saliva around the swollen epiglottis. The vallaecula was obliterated. The inner laryngeal structure could not be seen because it was obstructed by the swollen epiglottis.

No neck node was palpable. Other ENT examination was unremarkable. The total white cell count was mildly elevated. Other blood parameters were normal. The urea and electrolyte level were within normal limit. Lateral neck radiograph showed the classical thumb sign appearance of epiglottitis. The cervical vertebrae lordosis was obliterated. Urgent computed tomography of neck was obtained. The diagnosis of epiglottic abscess was confirmed (Figure 1).

Emergency tracheostomy was performed under local anesthesia in the operation theatre. It was followed by direct laryngoscopy and incisional and drainage under general anesthesia. Weerda's laryngoscope was used and suspension was obtained. The epiglottis was grossly swollen with area of impending rupture spots seen (Figure 2). The incision was made using microlaryngeal sickle knife at the most prominent area. Pus swab was taken and sent for culture and sensitivity. Direct suction was done to avoid the risk of aspiration.

Tracheostomy was kept for five days until laryngeal evaluation at day 5 post operatively showed normal-sized epiglottis. The tracheostomy then was decanulated and he was discharged home with oral antibiotics. Result of culture and sensitivity revealed normal upper respiratory flora isolated.

DISCUSSION

The risk factors for epiglottic abscess include adult age at onset, diabetes, and the presence of foreign body[1]. The clinical features include fever, odynophagia, changed in voice quality as it will become muffled. Interestingly, airway obstructions rarely become the presenting symptom as compared to the odynophagia and fever[2].

Performing indirect or rigid laryngoscopy in acute epiglottitis and epiglottic abscess was not advocated because the risk of inducing laryngeal spasm. A minimal contact with laryngoscope was reported to induce extremely severe vocal cord spasm, especially in asthma patient[3]. However, flexible

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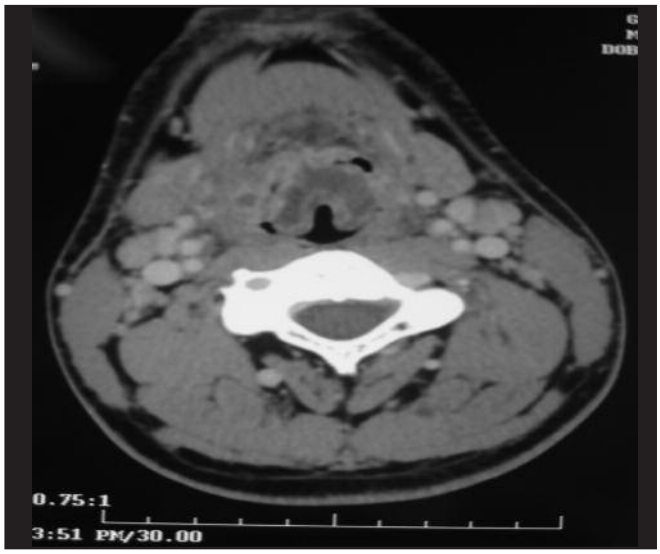

Fig. 1 : An axial CT scan of neck shows swollen epiglottis with area of hypodensity suggestive of abscess.

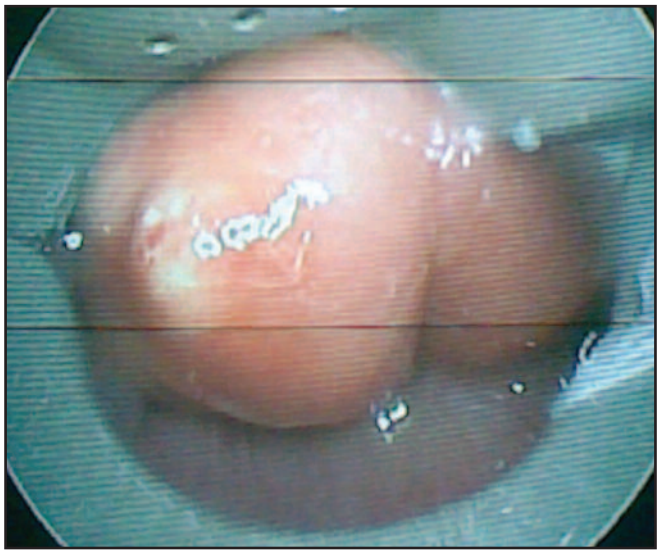

Fig. 2 : Swollen epiglottis with area of impending rupture.

nasopharyngolaryngoscopy tend to be safer because the view of the epiglottis could be obtained by placing the tip at a distance with the epiglottis, thus avoiding contact spasm of laryngeal structures. Previously, all laryngoscopic examination should be done in the operating room with equipment and trained personnel ready to perform immediate tracheostomy[4].

Heeneman *et al* (1977) documented among 26 cases of epiglottic abscess observed, the lingual surface of epiglottis was commonly affected as compared to the laryngeal counterpart, and less than half presented with airway problems. Lingual surface of the epiglottis was known to have loose mucosa covering and higher incidence of mucocele[2]. These factors contributed to the higher number of abscess occurred at the lingual surface compared to the laryngeal surface.

The larger dimension of adult airway may explain the reason of the late development of airway symptom in epiglottitis or epiglottic abscess in adult, as compared to the children. As in our case, the patient did not complain of breathing difficulty or showing sign of obstruction such as stridor.

Although the patient did not have any symptom of airway obstruction, the laryngoscopy findings which showed severely narrowed supralaryngeal airway warrant us to perform tracheostomy in order to establish airway as well as providing the route of administration of anesthesia. However, recent report suggested other method of treatment to avoid trachesotomy. Kim SG *et al* (2009) reported that 11 epiglottic abscesses were successfully treated with spinal needle aspiration that avoids the need for a tracheostomy[5].

In the present case, we opted for conventional technique of airway secure with tracheostomy followed by incision and drainage. Spinal needle aspiration was not attempted because applying a relatively new technique in such a rare case is technically more difficult. As epiglottic abscess is a rare complication of epiglottitis, the risk of repeated episode of abscess was not well discussed in literature. However, for acute epiglottitis, few cases of recurrent episodes have been reported.

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