



Innovative approach in the management of Adult Epiglottic Abscess. -A Prospective Study.

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ABSTRACT

Background: Epiglottic abscess in an otherwise healthy adult is seen as a rare sequelae of acute epiglottitis. It is a life threatening condition which requires emergency management, which if not done early, may result in fatality. Respiratory infections, diabetes exposure to environmental chemical or trauma which may lead to inflammation and infection of the structures around the throat which may lead on to acute epiglottitis, and an epiglottic abscess very rarely. In our case, study of 15 patients were immediately managed by doing an emergency tracheostomy followed by incision and drainage in the OPD (outpatient department). This emphasizes on need for emergency airway management by doing a tracheostomy there by facilitating incision and drainage in a case of epiglottic abscess as a daycare procedure. **Aim:** The primary aim of this clinical study is to emphasize the need for immediate airway management in epiglottic abscess there by facilitating incision and drainage as an OPD procedure **Conclusion:** Patients with epiglottic abscess are at increased risk of airway compromise, hence in such patients airway should be immediately secured by doing an emergency tracheostomy or intubation This study shows the benefits of an emergency tracheostomy by doing incision and drainage for epiglottic abscess as an OPD procedure. As most of the patients had co morbid illness such as hypertension diabetes copd which were a challenge in doing under general anaesthesia

KEYWORDS : Epiglottic Abscess, Epiglottitis, Tracheostomy, Incision and Drainage

1. Introduction

Epiglottic abscess is a rare complication of acute epiglottitis. Epiglottitis is an acute inflammation of the supraglottic region of the larynx involving epiglottis, arytenoids, vallecula and aryepiglottic folds. The development of epiglottic abscess from epiglottitis secondary to radiotherapy has previously been described in literature. Epiglottic abscess incidence among patient with acute epiglottitis is around 4%. It is due to respiratory infections, exposure to environmental chemicals and trauma. Previously, the incidence was reportedly more common in children. But recently the incidence of epiglottic abscess is found to be more common in adults. The incidence in adults is 1 case per 100,000 per year. Incidence is more common in males than in females with a ratio of 3:1. We present a case report of a 45-year-old male with epiglottic abscess, managed with emergency tracheostomy followed by endoscopic assisted incision and drainage of the abscess as an OPD (out-patient department) procedure.

Methods and materials

a total of 15 cases who attended our pod during a period of Jan 2012 to Feb 2014 with signs and symptoms of acute Epiglottic abscess in the age group between 30 to 55 yrs were taken up for study.



Figure 1. X-Ray STNL showing edema of the epiglottis (thumb sign).



Figure 2. Edematous epiglottis with pus pointing.

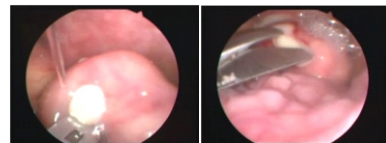


Figure 3. Incision and drainage.



Figure 4. Post operative day 7—near normal epiglottis.

Results.

All patients who attended opd emergency room were subjected to investigation such as complete haemogram blood sugar X-ray STNL each those patient who were on stridor were prepared for emergency tracheotomy immediately **most of the patients complaints of dysphagia, odynophagia, muffled voice, noisy breathing for the previous 2 to 4 hours.** Of the 15 patients 4 presented with minimal stridor 7 patients had comorbid diabetes/hypertension. All the patients tracheostomy was planned as emergency procedure in minor ot. 2 patients had saturation fall due to comorbid conditions VLS was done after stabilising the patient and scrutiny of investigations under video laryngoscopic examination epiglottic abscess was visualised and incision and drainage done . procedure was uneventful for most of patient as all patients were pre medicated with atropine and well hydrated Pus culture and sensitivity was sent and all patients put on higher antibiotics such as ceftriaxone 1.5gm bd metrogyl Iv tds majority of patients were discharged within 24 hrs and after 3 days post procedure VLS was done most of them recovered well and tracheostomy tube removed and sent 2 patients needed reexploration of incised site others recovered well.

Discussion :

Epiglottic abscess is a sequelae of acute epiglottitis, precisely known as supraglottitis. Supraglottitis is the acute inflammation involving the epiglottitis, arytenoids, vallecula and the aryepiglottic fold. The development of epiglottic abscess from epiglottitis secondary to radiotherapy has previously been described in the literature [1]. Epiglottic abscess incidence among patient with acute epiglottitis is around 4%. It is due to respiratory infections [2], exposure to environmental chemicals and trauma. The rising incidence of adult epiglottic abscess has risen between 1986 and 2000. This seems unrelated to Haemophilus influenzae Type B, but related to miscellaneous bacteria [3]. Clinical features include sore throat, respiratory difficulty, dysphagia, change in voice. Fatal air way obstruction can occur without warning, indicating a need for early need for early protection of airway in adults as well in children. Incidence was more common in children previously, but recently there has been a steady increase in incidence in the adults [4]. The decrease in incidence in the pediatric age is probably due to the introduction of the H. influenza B vaccine in children [4]. Incidence is more common in males than in females [5]. Physical findings are epiglottic asymmetry, a yellow colored epiglottis, prominent median glossoepiglottic furrow and taut appearing epiglottic mucosa [5]. The organisms causing epiglottic abscess were due to streptococcus hemolyticus which was found in pure culture in most of the cases. other organisms isolated were Hemophilus influenza, Escherichia coli, Pseudomonas aeruginosa, Micrococcus catarrhalis, Staphylococcus aureus, klebsiella pneumoniae and pneumococci [6]. Risk factors include adult age at onset, diabetes mellitus, presence of foreign body, immune compromised state [6].

A diagnosis of epiglottic abscess should be considered in a patient with sore throat, epiglottitis, dyspnea, stridor. CT and MRI may reveal thickening of the epiglottis, obliteration of the pre-epiglottic fat and thickening of the subcutaneous tissue and muscles [7]. Lateral neck radiographs and CT imaging may be helpful but a prompt and accurate diagnosis can be established with flexible fiberoptic Nasopharyngo laryngoscope. The lingual surface is the most commonly involved site [7]. Differential diagnosis includes abscess of deep neck space, peritonsillar abscess, lingual tonsillitis, laryngitis, ingested foreign body.

The principles of treatment for patients with epiglottic abscess are immediate airway management, direct laryngoscopy with incision and drainage of the abscess and intravenous administration of broad spectrum antibiotics.

Since in acute epiglottic abscess most of them need securing of airway either with awake intubation or bronchoscopy assisted intubation or tracheostomy this innovative techniques seem to be of benefit with low risk to patients as well as anesthesiologist specially to those with comorbid illness and also early intervention will limit complications.

2. Outcome and Follow Up

By doing an emergency tracheostomy followed by incision and drainage the patient was managed promptly. Patient has been on follow up for the past two months in the OPD and subsequent video laryngoscopic examinations revealed a normal epiglottis with an adequate laryngeal inlet.

3. Conclusions

- Patients with epiglottic abscess are at increased risk of airway compromise, hence in such patients airway should be immediately secured by doing an emergency tracheostomy.
- Any undue manipulation would lead to or precipitate glottic spasm.
- In previously managed epiglottic abscesses, incision and drainage were done in the OT under general anesthesia, but we did this procedure in the OPD under local anesthesia.
- This case study shows the benefits of an emergency tracheostomy for doing incision and drainage for epiglottic

abscess as an OPD procedure. done benefiting patients with comorbid illness and lesser complications.

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