ACUTE SUPRAGLOTTITIS: A POTENTIAL KILLER

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Introduction:

Acute supraglottitis (AS) is an infection and inflammation of epiglottis and its surrounding glottic structures. It is a potentially life-threatening problem leading to airway obstruction. Due to the non-specific clinical presentation, AS poses a diagnostic challenge.

Case Description:

A 40-year-old lady with well-controlled diabetes mellitus presented with sudden onset of dysphagia, odynophagia and dysphonia. She denied fever, respiratory symptoms or prior trauma. Oropharynx examination was unremarkable. Patient was sent for a plain radiography of the chest and soft tissue of the neck, aiming to look for thumb sign; but was absent. Blood parameters were within normal range. In view of potential airway compromise, patient was referred to the Otorhinolaryngology team. Flexible nasolaryngoscopy was performed and demonstrated cystic swelling over left aryepiglottic fold, left arytenoid and pyriform fossa obscuring the left vocal cord. Computed tomography (CT) of neck showed a benign cystic lesion of the left hypopharynx causing airway narrowing. Intravenous Dexamethasone and Ceftriaxone were administered prior to admission. She underwent direct laryngoscopy and excision of hypopharynx mass. Histopathological analysis revealed fragments of inflamed fibro-collagenous tissue infiltrated with lymphocytes with an area of tissue necrosis. Patient was discharged well after 1 week.

Case Discussion:

Patients with AS usually present with fever, sore throat, dysphasia, dysphonia and leukocytosis. Thumb sign on plain radiograph results from inflammation and swelling of the epiglottis, and has a sensitivity of 88%, but unfortunately was absent in our patient. Bedside fibreoptic nasolaryngoscopy remains the gold standard tool in diagnosis. CT neck is done to diagnose complications, including extension of the infection and formation of multiple abscess. Steroids is increasingly used in AS to stabilise endothelial permeability thus reducing tissue oedema. Should AS patients require intubation, awake intubation is advocated with a mandatory preparation for emergency front-of-neck-access (eFONA).

Conclusion:

AS can present with non-specific symptoms, thus causing diagnostic difficulties. Emergency clinicians should have a high index of suspicion with patients presenting with odynophagia, sore throat and dysphagia, with a normal oropharynx on examination. Rapid initiation of treatment prevents progression of disease leading to airway obstruction.

Keywords: supraglottitis, adult supraglottitis, thumb sign