

Unusually long epiglottis: A case report

Azhar A Siddiqui^{1*}, A G Shroff²

¹Professor, Department of Anatomy, Indian Institute of Medical Science and Research, Warudi, Tq. Badnapur, Dist. Jalna

²Dean, MGM Medical College, Aurangabad, Maharashtra, INDIA.

Email: drazharsiddiqui@gmail.com

Abstract

The Epiglottis is thin leaf shaped cartilage of larynx attached to other cartilages of larynx, hyoid bone and tongue either directly or by mucosal folds. It is usually longer and higher in children than adults. Usually the epiglottis is not seen on oral examination, as it lies below the level of tongue. However rarely, it may be seen in children if it is unusually long labeled as Visible Epiglottis, High Raising Epiglottis or High Arched Epiglottis, etc... A rare case report of Unusually Long Epiglottis is presented in an adult female, detected accidentally during routine oral examination for common cold. The patient was not having any complaints because of this condition. Literature states that this condition is rarely seen in children but very rare in adults. If asymptomatic it should be left alone with assurance to the patient and relatives. It may be treated only if creating obstruction to airway.

Keywords: High-rising epiglottis, Long Epiglottis, Visible Epiglottis.

*Address for Correspondence:

Dr. Azhar A. Siddiqui, Professor, Flat No. 1, Saidham Apartment, Jaisingpura, Near University Gate, Aurangabad – 431001, Maharashtra, INDIA.

Email: drazharsiddiqui@gmail.com

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INTRODUCTION

Anatomy: The Epiglottis is thin leaf shaped plate of elastic fibrocartilage of larynx. Its upper end is free and lower end is attached to the posterior surface of thyroid cartilages. It is also attached to arytenoid cartilage and hyoid bone aryepiglottic folds and hyoepiglottic ligaments. The free upper part is reflected to the tongue by glossoepiglottic folds, one median and two laterals with the space between them called vallecula. It is usually longer and higher in children than adults. It performs important function of directing fluids and food into pharynx by closing the inlet of larynx.

Development: The epiglottis develops from fusion of ventral ends of fourth arch with caudal part of hypobranchial eminence. The fetal anatomy of the human epiglottis has not yet been fully described. In one study¹ it is stated that a mesenchymal condensation of the epiglottic cartilage appears posterior and somewhat superior to the hyoid body at 9 weeks, but at 12 and 15 weeks, the root or inferior part descends to the level of the thyroid cartilage. After 20 weeks, the epiglottis again protrudes superiorly beyond the hyoid body.

CASE REPORT

A young lady of around 25 years came to a private clinic with the complaints of common cold. On examination of oral cavity, the practitioner was surprised to see something behind tongue. It was found to be epiglottis. It was confirmed by depressing tongue. The mucus membrane of epiglottis and surrounding was normal in appearance with no signs of inflammation or edema. The findings were also confirmed by indirect laryngoscopy by E.N.T. Surgeon. There was no history of snoring, sleep apnoea or any other respiratory blockade anytime in her life so far. Photograph of the patient with mouth widely open was taken. The epiglottis is seen clearly in the photograph below.

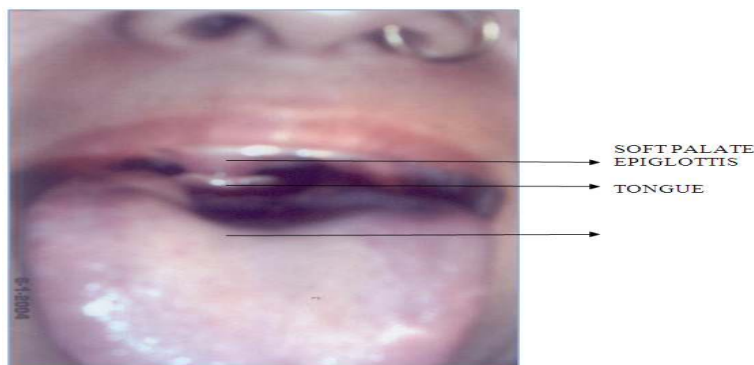


Figure 1: Unusually long epiglottis

DISCUSSION

Both structural and functional differences exist between the pediatric and the adult larynx. The size of the internal larynx at birth is approximately one third of its adult size. The larynx grows until puberty, at which time it is fully developed. The thyroid cartilage is closer to the hyoid in the infant. The fetal larynx is positioned high in the neck, usually at the level of the second and third vertebrae, descending to the fourth vertebra at birth, to the fifth at approximately 6 years of age, and to the sixth or seventh at puberty¹. The higher larynx of the infant is softer, more easily displaced, and more easily irritated. The epiglottis projects into the oropharynx, and its shape has a considerable range of variation. The so-called infantile epiglottis is longer, narrower, and more tubular. The epiglottis is softer and less rigid than in the adult². Raghavendran S and Vas L³ reported a 10-yr-old girl with visible epiglottis, followed this with a study of visible epiglottis in 100 consecutive patients, ages 6–10 yr, presenting for routine preanaesthetic check up. They found a visible epiglottis in six, i.e. 6%. Petkar N. *et al*⁴ reported omega shaped visible epiglottis in 3 year old girl. Ahmed FJ *et al*⁵ reported visible epiglottis in 8 year old girl. Alamri YI⁶ reported High Rising epiglottis in 10 year old boy. Ezri *et al* (2007)⁷ reported incidence of visible epiglottis in 1.18% in adults. The other anomalies of epiglottis reported in literature are bifid epiglottis with vertical median cleft⁸, hypoplastic epiglottis⁹, and rudimentary epiglottis¹⁰.

CONCLUSION

The present case shows unusually long epiglottis which can be easily seen behind the tongue. This anomaly is very rarely seen in adults. The only reference found was 1.18%⁶ in adults. Even though it is reported rarely in children, the maximum incidence found was 6%², definitely more than adults. It is reported more in females than males. It may be noted that in many times the person

is normal with no disturbances of food or air obstruction, as in the present case. Sometimes foreign sensations may be felt in throat. In these cases assurance may be given to patient and relatives that nothing is wrong with their epiglottis and it's just an unusual variant. Rarely surgical intervention may be required.

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