

CASE REPORT

Visible Epiglottitis in Children

¹Farooque Jamaluddin Ahmed, ²André Luis Shinohara, ³Saete Moura Bonifácio da Silva
⁴Jesus Carlos Andreo, ⁵Antonio de Castro Rodrigues

ABSTRACT

Visible epiglottitis is a rare anatomical variant which is usually asymptomatic without the need of any medical or surgical intervention. It is most commonly seen in children but there are some reports of its prevalence in adults too. Cases of visible epiglottitis seem to be unfamiliar among dental professionals. In this report, we have attempted to present this anatomical variant of epiglottitis in the field of dentistry by describing a case of an 8-year-old girl who presented to the department of pediatric dentistry for normal dental check-up unaware of the existence of the visible epiglottitis.

Keywords: Epiglottitis, Larynx, High-rising epiglottitis.

How to cite this article: Ahmed FJ, Shinohara AL, da Silva SMB, Andreo JC, de Castro Rodrigues A. Visible Epiglottitis in Children. *Int J Clin Pediatr Dent* 2014;7(3):223-224.

Source of support: Nil

Conflict of interest: None declared

INTRODUCTION

The Epiglottitis is the highest point of the Larynx, which forms the upper portion of the Air Passage. Its main function is to prevent the entry of food into the lungs by closing the trachea (windpipe). The epiglottitis along with the aryepiglottic fold helps in directing the water and food toward the upper esophagus.

Embryologically the epiglottitis is derived from third and fourth brachial arches.¹ Congenital anomalies associated with epiglottitis are very rare. Hypoplastic epiglottitis, rudimentary epiglottitis and bifid epiglottitis are some of the congenital malformations reported in the literature.² Our thorough search of the literature revealed very few reported cases of visible epiglottitis. It has been also called as 'high-rising epiglottitis' by some

other clinicians.^{2,3} Literature does not provide much information about this anatomical variation. Otherwise some authors claim for the importance of the epiglottitis anatomy and preepiglottic space in relation to spread of carcinoma of the larynx.^{4,5} This led us to report this benign yet an anatomical variant in the appearance of epiglottitis. Unlike bifid epiglottitis, visible epiglottitis has not been associated with any specific syndrome. Normally, visible epiglottitis does not present any physiological distress except in few cases where the patient might complain of difficulty in breathing.

CASE REPORT

An 8-year-old girl visited the Department of Pediatric Dentistry, USP, Bauru-SP, Brazil for a regular oral checkup. While performing oral examination, the dentist came across an unusual anatomical structure located posterior to the tongue. Unaware of its significance, the dentist approached the department of Anatomy, USP for consultation. After a thorough clinical examination of the oral cavity which showed the epiglottitis touching the uvula (Fig. 1) and with the help of the literature, a diagnosis of visible epiglottitis was made. Knowing the benign feature of such anatomical variant unless associated with any sort of distress, the patient and the parents were reassured of its innocuous nature and the patient was sent back after necessary dental treatment.

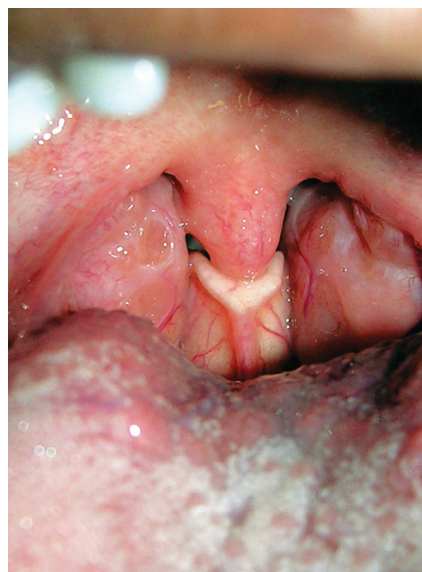


Fig. 1: Clinical photograph showing the free border of epiglottitis touching the uvula of the patient

^{1,2}Ex-PhD Student, ^{3,4}Associate Professor, ⁵Professor

^{1,2,4,5}Department of Biological Sciences-Anatomy, Bauru School of Dentistry, University of São Paulo, São Paulo, Brazil

³Department of Odontopediatrics, Orthodontics and Collective Health, Bauru School of Dentistry, University of São Paulo São Paulo, Brazil

Corresponding Author: Antonio de Castro Rodrigues Professor, Department of Biological Sciences-Anatomy, Bauru School of Dentistry, University of São Paulo, São Paulo, Brazil Phone: 551432358222, e-mail: acastro@fob.usp.br

DISCUSSION

In literature, visible epiglottis has mostly been associated with children.^{2,3} However, it is also seen in the adults in certain cases.⁶ Visible epiglottis has been noted during pharyngeal examination for intubation by various clinicians. Ezri et al in the year 1998 added a new class zero to the Mallampati grading system for predicting the degree of difficulty in laryngeal exposure.⁷ Cases in which epiglottis was visible on opening of mouth during laryngoscopy was included in this class zero.⁸ In a further study carried out by Ezri et al (2001) (class zero airway had an incidence of 1.18% in adults. This rate is much higher in children as observed by Raghavendran and Vas where they report 6 such cases out of 100 examined in children aged between 6 and 10 years. Interestingly most of the cases reported involved female subjects suggesting a sexual predilection toward female of this anatomical variant.^{6,9}

Knowledge of 'visible epiglottis' or the high rising epiglottis is important as it might cause unnecessary panic in parents and sometimes even among the dental professionals. Even though it is not very commonly witnessed, a lack of knowledge of such cases can become a cause of concern for the dental professionals as seen in this particular case. A lot of queries from the parents have been made in internet regarding visible epiglottis.² General awareness of this anatomical variant will reduce the anxiety level among the population. No treatment has been suggested for cases without accompanying any sorts of distress in the patient. If a dentist comes across such cases and the patient complains about any

discomfort, they should be referred to an otolaryngological consultation.

CONCLUSION

Knowledge of 'visible epiglottis' or the high rising epiglottis is important as it might cause unnecessary panic in parents and sometimes even among the dental professionals.

REFERENCES

1. Roger ES, Judith GH. Human malformations and related anomalies. 2nd ed. New York: Oxford University Press Inc; 2006. p. 2020.
2. Alamri Y, Stringer MD. A high-rising epiglottis: a benign anatomical variant. *Clin Anat* 2011;24(5):652-654.
3. Petkar N, Georgalas C, Bhattacharyya A. High-rising epiglottis in children: should it cause concern? *J Am Board Fam Med* 2007;20(5):495-496.
4. Lam KH, Wong J. The preepiglottic and paraglottic spaces in relation to spread of carcinoma of the larynx. *Am J Otolaryngol* 1983;4(2):81-91.
5. Gregor RT. The preepiglottic space revisited: is it significant? *Am J Otolaryngol* 1990;11(3):161-164.
6. Ezri T, Warters RD, Szmuk P, Sael-Eddin H, Geva D, Katz J, Hagbesg C. The incidence of class 'zero' airway and the impact of Mallampati score, age, sex and body mass index on prediction of laryngoscopy grade. *Anesth Analg* 2001;93(4):1073-1075.
7. Ezri T, Cohen I, Geva D, Szmuk P. Pharyngoscopic views. *Anesth Analg* 1998;87(3):748.
8. Mallampati SR, Gatt SP, Gugino LD, Desai SP, Waraksa B, Freiburger D, Lic PI. A clinical sign to predict difficult tracheal intubation: a prospective study. *Can Anaesth Soc J* 1985;32(4):429-434.
9. Raghavendran S, Vas L. The visible epiglottis revisited. *Anesth Analg* 2000;91(1):249.