Introduction

Epidermoid cysts can arise anywhere in the body, with the incidence approaching 7% in the head and neck region.1 Epidermoid cysts are rarely located in the uvula. Since Faulder presented a child with epidermoid cyst of the uvula in 1923, epidermoid cyst of the uvula has been reported in 10 children.1–8 Epidermoid cyst in the uvula is a painless and slowly enlarging lesion. The majority of epidermoid cyst of the uvula is asymptomatic. Symptomatic children present with decreased suckling in the neonatal period and snoring and dysphagia in the infancy period.1–8 To date, epidermoid cyst of the uvula has not been reported in a child at preschool age. We present clinical and histopathological characteristics of an epidermoid cyst in a child with uvula mass.

Case report

A 5-year-old boy was seen in the pediatric otolaryngology clinic for assessment of a uvula mass. The mass was detected during a tonsillectomy and adenoidectomy performed for sleep-related breathing disorder. The mass was completely removed and the final diagnosis was epidermoid cyst.

Conclusion: Pediatricians, otolaryngologists, and pathologists should be cognizant of the occurrence of uvular epidermoid cyst in preschool children.

Keywords
Uvula mass, epidermoid cyst, child

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squamous epithelium lined cyst with squamous debris in the lamina propria, consistent with an epidermoid cyst (Figures 2 and 3).

Figure 2. Photomicrograph of the excised uvula mass showing normal stratified squamous mucosa on the surface and a squamous epithelial lined cystic lesion within the lamina propria (hematoxylin and eosin, 50× total magnification).

Discussion

Clinical presentation of uvular epidermoid cyst has been reported in neonates and infants. While usually asymptomatic, neonates and infants may present with feeding difficulty and snoring. In this study, epidermoid cyst of the uvula was documented as an incidental finding in an asymptomatic child at preschool age. Similar to the clinical presentation of neonates and infants with uvular epidermoid cyst, preschool children may develop snoring, difficulty swallowing, and difficulty breathing as the size of the mass increases. Given the close proximity of the uvula to the nasopharynx, uvular epidermoid cyst has potential to cause palatal insufficiency and airway obstruction.

Figure 3. High-power view of the uvula cyst showing benign non-keratinizing stratified squamous epithelial lining with luminal debris comprising sloughed epithelial cells and macrophages. No other components are present within the cyst wall (hematoxylin and eosin, 200× total magnification).

The differential for uvular cystic mass in children encompasses a wide variety of benign and malignant lesions, including, but not limited to, epidermoid cyst, mucocele, lymphoepithelial cysts, minor salivary gland neoplasm, and cystic teratomas. The definitive diagnosis and treatment of epidermoid cysts involves complete resection of the mass. Epithelial cysts are lined with squamous epithelium without adnexal structures. Fine needle aspiration is often not feasible in uvular masses given the anatomic location and potential to lead to dangerous infection and swelling. Magnetic resonance imaging is a useful adjunct for pre-operative planning of the mass if malignancy is suspected. Imaging is not necessary if the mass appears benign and well circumscribed with fully appreciated borders on examination. Epidermal cysts are well circumscribed and can be dissected out without affecting underlying musculature. Early surgical excision of uvular epidermoid cyst can prevent complications. Previous studies have demonstrated the safety and feasibility of uvular cyst removal as early as the neonatal period.

Most epidermoid cysts are acquired lesions, most likely due to trauma or iatrogenic introduction of rests of epithelial cells into deep tissue during surgery. The pathogenesis of uvular epidermoid has not been identified as the majority of uvular epidermoid cysts occurred in neonates and infants with no history of trauma or prior intubation.
epidermoid cysts are believed to be caused by ectoderm trapped at the time of fusion of embryonic structures. Particularly, in the oral cavity, epidermoid cysts of the soft palate and uvula are likely caused by epithelium buried during fusion of the first and second branchial arches.10 Plausibly, uvular epidermoid cysts may have developed during the fusion of the maxillary processes to form the palate during the 6th and 12th weeks of embryological development.7,9

**Conclusion**

Early detection and management of uvular epidermoid cyst prevents complications in children. Pediatricians, otolaryngologists, and pathologists should be cognizant of the occurrence of uvular epidermoid cyst in preschool children.

**Declaration of conflicting interests**

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

**Ethical approval**

Ethical approval to report this case was obtained from University of Texas Southwestern Medical Center, Institutional Review Board (STU 022016-085).

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**Informed consent**

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