# Esophageal squamous papilloma in children

Esophageal squamous papilloma (ESP) is a rare and benign epithelial lesion occurring typically in adults aged 50 and over [1]. We report three children under 15 years who presented a single esophageal papilloma. For each patient, the lesion was asymptomatic, the patient had no history of gastroesophageal reflux (GER) or esophagitis, and the lesion was an incidental finding at esophagogastroduodenoscopy. The lesion appeared as a small sessile or pedunculated, mutilobulated, and verrucous polyp with fingerlike projections located in the mid or lower esophagus ( Fig. 1). Biopsies confirmed the diagnosis of papilloma, showing papillary projections of a fibrovascular core covered by squamous epithelium (> Fig. 2). There was no dysplasia, and human papillomavirus (HPV) infection could not be detected. Expression of p16INK4a, a marker for premalignant and malignant lesions of the squamous epithelia, was normal. The ESPs were removed with regular biopsy forceps. Endoscopy 6 months later in one patient showed no relapse.

The etiology of ESP remains unclear. Chronic esophageal inflammation such as GER-induced esophagitis or direct trauma (caused, for example, by nasogastric tubes, dilations, or stents) may play a role [2,3]. The role of HPV infection in the pathogenesis of ESP remains controversial: HPV is shown to be detected (by in-situ hybridization or polymerase chain reaction) in 0%-87% of papillomatous tissue [2,4]. Although HPV has been linked to pathogenesis of the larynx and cervical cancer, previous reports of isolated ESP did not identify any risk of progression to malignancies [5]. Furthermore, when found, HPV strains generally correspond to low-risk HPV genotypes [4]. Overexpression of the protein p16INK4a, involved in the regulation of the cell cycle and in cervical HPV-linked dysplasia, was not found in ESPs [4].

Since ESPs are extremely rare in children, there is no clear consensus regarding their management. However, ESP can be considered a benign lesion with uncommon recurrence. A solitary ESP < 10 mm should be removed with a regular biopsy forceps for histological study. Whether HPV and p16INK4a detection are useful in clinical practice remains unknown.



**Fig. 1** Endoscopic views of an esophageal squamous papilloma (ESP): **a** ESP in the mid esophagus of a 15-year-old boy having esophagogastroduodenoscopy (EGD) for dyspepsia; **b** ESP in a 14-year-old girl having EGD for suspected celiac disease; **c** ESP in the lower esophagus of a 10-year-old boy with celiac disease.



Fig. 2 Microscopic view of the papilloma. Papillary projections of tissue are lined by a stratified squamous epithelium and a fibrovascular core (hematoxylin and eosin, × 50).

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## Competing interests: None

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## **Bibliography**

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