Inverted papilloma: The stubbornly persistent tumor of the sinonasal cavity

The association between human papilloma virus (HPV) and diseases of the head and neck is a tremendous contemporary issue. When looking at the vast amount of data coming from numerous sources about HPV and head and neck tumors, one could be forgiven for thinking that HPV is only related to oral mucosal disease. However, the association between HPV and sinonasal papillomas has been known for many years and is nowhere more prominently seen than when discussing the pathophysiology of that most stubborn of sinonasal tumors, the inverted papilloma (IP). This tumor remains the most common benign lesion of the nasal cavity, but, despite it being an infection, it behaves like an aggressive tumor, with both local destruction and a 10–15% propensity for malignant transformation. Although the HPV origin of this disease is well understood, there remains much work to be done in understanding why this particular variant of papilloma behaves in the unique ways that it does. This issue of the American Journal of Rhinology and Allergy (AJRA), contains three important articles that directly examined this challenging surgical problem.

First, a fascinating article by Roh et al.1 demonstrates contrarian data that indicates that smoking, and not primary HPV infection, may be at the root cause of IP recurrence. HPV-specific data from the recurrence versus no recurrence groups is not different, whereas the smoking group had a nearly 10 times higher recurrence rate. This finding calls into question many of the commonly held beliefs about how this disease progresses. Second, Yamashita et al.2 describe a new marker for IP, that being serum squamous-cell carcinoma antigen. Distinguishing IP from surrounding, more routine, sinonasal polyposis can be a pathologic challenge that often requires an invasive biopsy. This article proposes a blood test that can be used instead of biopsy, which, if upheld in further clinical work, has the potential to drastically change how IP is diagnosed. Third, Akkari et al.3 review a series of unusual presentations of IP, which confirm what many clinicians already know in that keeping an open mind to strange findings can often let one arrive at a surprising conclusion, and nowhere is this more true than the odd manners in which IP can behave like an aggressive tumor, with both local destruction and a 10–15% propensity for malignant transformation. Although the HPV origin of this disease is well understood, there remains much work to be done in understanding why this particular variant of papilloma behaves in the unique ways that it does. This issue of the American Journal of Rhinology and Allergy (AJRA), contains three important articles that directly examined this challenging surgical problem.

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Pediatric sinonasal surgery remains a controversial topic, and this issue of AJRA adds to the discussion. Hamilos et al. review the role of problem-based learning in teaching students about pediatric CRS. Yenigun et al. assess the role of the eosinophil-to-lymphocyte ratio in evaluating pediatric patients with rhinitis, and Cingi et al. try to assess the youngest age at which septoplasty can safely be performed. All these are interesting articles that will certainly stimulate discussion in pediatric circles.

Finally, there are three interesting articles on rhinitis in this issue of AJRA. Otsuka et al. study the role of bacterial colonization in Japanese cedar pollinosis and showed that neutrophilia in these patients can exacerbate symptoms. Yenigun et al. identify a possible link between dry eye and allergy. As well, Kim et al. found that the immunologic effects of lead exposure may be greater in people with allergic sensitization.

On behalf of the Editorial Board, I have no doubt you the reader will find this issue highly educational and relevant to your practice. May we continue to work together to better our knowledge of sinonasal disorders.

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