Laryngeal squamous papilloma

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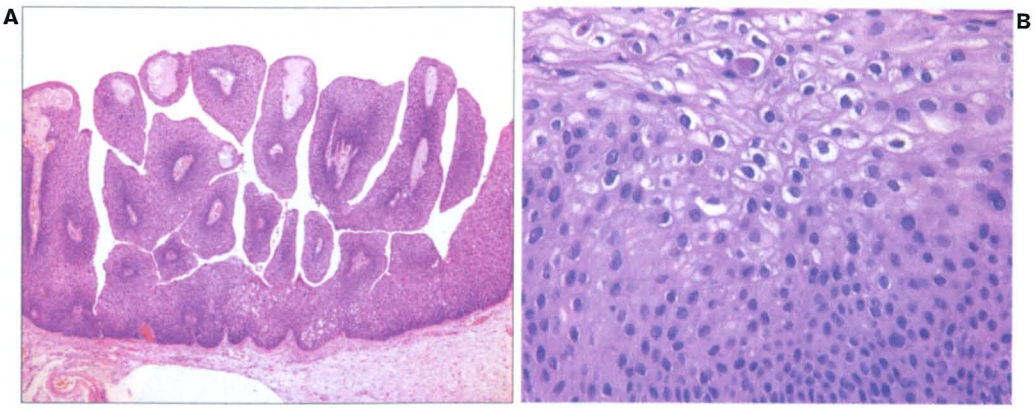

*Figure. **A:** Multiple papillary projections arise from the surface. **B:** Koilocytic atypia exhibits crenated nuclei surrounded by clear cytoplasm. Prominent cellular borders are seen at the surface of this squamous papilloma.*

Squamous papilloma (SP) is the most common benign laryngeal tumor. It is caused by the human papillomavirus. Clinically, SP rarely occurs as a solitary lesion; most arise as multiple, recurrent tumors, usually in children. SPs generally originate in the true and false vocal folds; they may spread to other sites in the oral cavity and aerodigestive tract. They form at the juxtaposition of the squamous and respiratory epithelia. If an area of juxtaposition is artificially induced (such as by squamous metaplasia), spread of the disease may result. There is a characteristic bimodal age distribution, with a juvenile peak at 5 years and an adult peak between 20 and 40 years. The disease course tends to be more aggressive in children, who frequently develop recurrent and progressive disease. The relatively small diameter of the airways in children may account for some of the severe respiratory embarrassment they experience. There is a slight male predominance in adults. Patients usually present with dysphonia and hoarseness.

Macroscopically, SPs are exophytic, branching, pedunculated, or broad-based lesions. They are characterized by multiple branching mucosal projections that are made up of hyperplastic squamous epithelium overlying thin fibrovascular cores (figure, A). There is basal and parabasal cell hyperplasia with perpendicular orientation of the nuclei to the basement membrane. There may be a slight flattening at the surface with focal parakeratosis. Mitotic figures are usually easy to identify, and are not atypical. Koilocytosis (wrinkled, hyperchromatic nuclei surrounded by a cleared halo in cells with a well-defined cell border) is characteristic of SP (figure, B). The major differential diagnoses are between papillary dysplasia and squamous cell carcinoma, both of which have more significant pleomorphism.

The clinical course of patients with SP is unpredictable. Even though SP is benign, mortality rates as high as 14% have been reported. Surgery—frequently multiple procedures—is the mainstay of treatment, although additional medical therapies show promise.

Suggested reading

Derkay CS. Recurrent respiratory papillomatosis. Laryngoscope 2001; 111(1):57-69.

Gale N. Papilloma-papillomatosis. In: Barnes EL, Michael L, eds. Pathology and Genetics of Tumours of the Head and Neck. Kliehues P, Sobin LH, series eds. World Health Organization Classification of Tumours. Lyon, France: IARC Press; 2005:147-8.

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