MEDICAL IMAGE

MAYO CLINIC PROCEEDINGS

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Polypoid Corditis: Reinke Edema of the Larynx

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Polypoid corditis (also called Reinke edema) is a benign condition that arises in chronic smokers. The Reinke space is the loose connective tissue directly subjacent to the basement membrane of the squamous-lined true vocal fold. Devoid of glandular tissue and lymphatic channels, this area is prone to react to trauma, either due to smoke, excessive phonation, or otherwise. Given the lack of lymphatic channels, the tissue may become edematous with increased vascularization, so-called Reinke edema, and may manifest clinically as a polypoid projection into the airway.

Symptomatic onset is gradual and can lead to impaired phonation (ie, a lower, rougher voice) and airway obstruction in severe cases. Smoking is the most important risk factor, but laryngopharyngeal reflux and aggressive voice use also contribute.

The laryngoscopic appearance (Figure 1A) shows bilateral fullness at the medial or superior surface of the vocal fold, with a ball-valving appearance with respiration. Risk of malignancy or premalignancy is generally considered low at 0% to 3%. Microscopically, the tissue may show normal, hyperplastic, or parakeratotic squamous surface epithelium with an edematous stroma (Figures 2A and 2B). The stroma may also be hyalinized, fibrotic, or hemorrhagic. The most common stromal appearance on hematoxylin and eosin stain is gray, so-called myxoid, with variable numbers of bland fibroblast-like cells.

Treatment includes smoking cessation and sometimes voice therapy; these may improve the voice, but rarely resolve the anatomical changes. Surgical treatment (Figure 1B), either in the office (with laser ablation) or in the operating room (with phonomicrosurgical

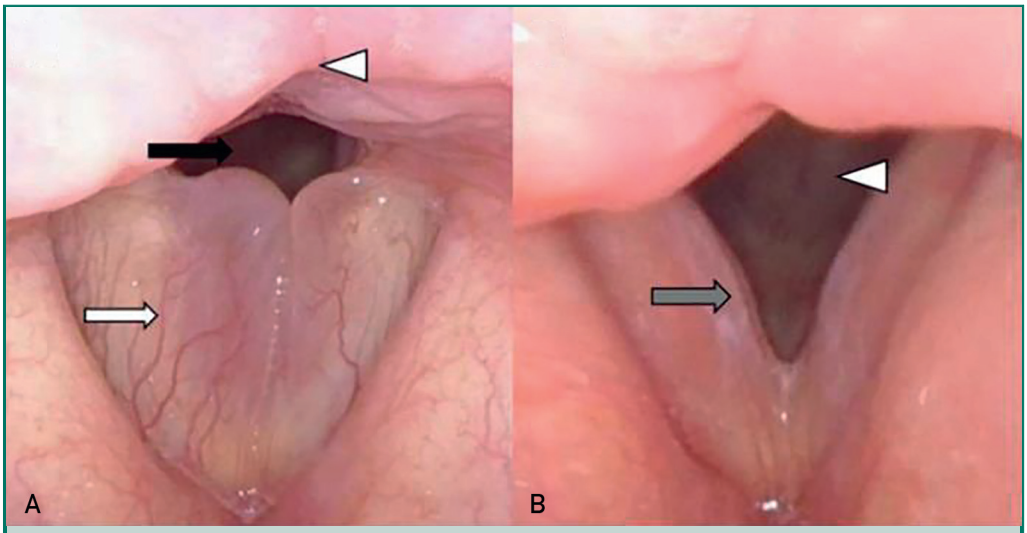

FIGURE 1. A, Laryngoscopy of a patient with polypoid corditis. Note the engorged vasculature (black arrow) in the subepithelial space, polypoid fullness of the medial vocal fold (white arrow), and a narrowed airway (white arrowhead). B, Laryngeal examination after surgical excision. Note the absence of polyp (gray arrow) and improved airway (white arrowhead).

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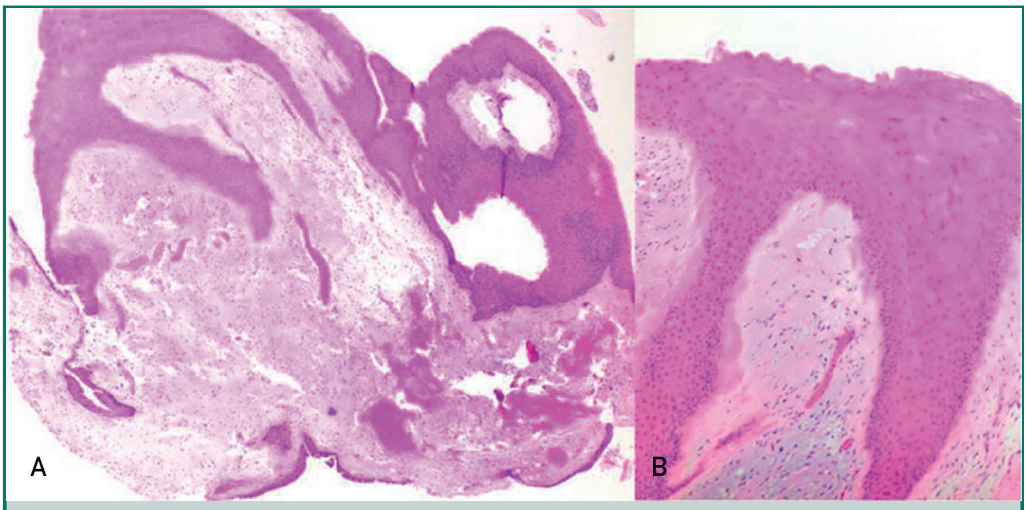

FIGURE 2. H&E staining demonstrating polypoid corditis at low/40x (A) and high/100x (B) power.

excision), is reserved for patients who do not have success with conservative management.

POTENTIAL COMPETING INTERESTS

The authors report no potential competing interests.

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