Herpes simplex virus laryngitis

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Figure. A: An intense acute inflammatory infiltrate with necrotic debris dominates this sample, although a few multinucleated giant cells with ground-glass nuclei characteristic for herpes simplex virus are seen. B: Herpes simplex virus will produce a characteristic ground-glass appearance to the nuclei, especially when found in a multinucleated giant cell.

Both infectious and inflammatory conditions can result in laryngitis, which is divided into acute and chronic forms. Some conditions are more frequent in adults, while others are more common in children. Laryngitis (“croup,” epiglottitis, and laryngotracheobronchitis) has many causes, including viral, bacterial, mycotic, or mycobacterial infections, trauma, neoplasms, vascular compromise during surgery, iatrogenic injury from feeding tubes or tracheostomy tubes, foreign-body impaction, and radiation therapy. A number of etiologies may be present synchronously, such that an infection may develop in association with radiation therapy, for example. Therefore, multiple etiologies may need to be addressed.

The findings on histologic examination may be nonspecific, with edema and an inflammatory infiltrate identified (figure, A). There may be vocal fold compromise and ulceration. Close correlation with the clinical setting—in addition to serology, cytologic preparations, microbiologic cultures or tests, precipitant, and other clinical studies (thyroid function tests, skin tests, etc.)—is imperative to obtain a complete view of the disease process. Within the necrotic exudate, it is possible to identify specific herpes simplex virus inclusions. Multinucleation and ground-glass–appearing nuclear chromatin distribution are characteristic of a herpes virus infection (figure, B).

Supportive and specific antiviral therapies can be instituted depending on the severity of the disease and the patient’s immunologic status.

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