Saccular cysts: a current review of characteristics and management
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Introduction
The laryngeal saccule is a blind sac between false vocal fold and thyroid cartilage. A saccular cyst represents dilation of this saccule with mucous, usually secondary to obstruction of its orifice. These lesions have specific characteristics, predisposing factors, and classification.1-6 (Table 1) These are differentiated from laryngoceles which represent dilation of the saccule with air.

Management of these lesions has evolved over time, from needle aspiration and decompression to external excision. (Table II) Currently, endoscopic excision is being increasingly utilized.1-6

The purpose of this study was to review a large cohort of adult patients with saccular cysts. We will present an updated description of these lesions and their management.

Materials/Methods
Medical records were reviewed for all adult patients with saccular cyst evaluated at a tertiary care laryngology center between July 1, 2005 and August 31, 2009. Data recorded included age, gender, symptoms, pertinent past medical history, occupation, side and classification of saccular cyst, type of surgery, length of follow-up, recurrence and subsequent intervention, and patient outcome.

Sample case
• 67yo female with long standing history of left vocal fold paralysis following intubation, treated with Teflon injection in 1986 without improvement in her voice
• Stable over ensuing decades
• Hip surgery (2008) with slowly progressive (over months) post-operative dysphonia and worsening hoarseness without stridor
• Flexible laryngoscopy and computed tomography demonstrate large left saccular cyst extending through thyrohyoid membrane into neck (Figures 1 and 2)
• Patient underwent CO2 laser-assisted, endoscopic excision of the left saccular cyst (Figures 3-5)
• Healed well post-operatively. (Figure 6) Significant improvement in dysphonia and hoarseness. No recurrence as of 5 months after surgery

Results
• 16 patients identified
• Dysphonia (100%)
• Preceding upper respiratory infection (25%)
• Predominantly left-sided (62.5%)
• Predominantly anterior location (85.7%)
• Combined anterior/lateral (14.3%)
• No isolated lateral saccular cyst
• Extension into the neck in 1 patient (6.3%)
• Surgery performed in 13/16 patients (81%)
• 100% endoscopic excision
• No patient required external approach
• Recurrence in 2 patients (15%), both within 2 months
• 1 anterior, managed conservatively
• 1 combined anterior/lateral, treated with secondary endoscopic resection

Discussion
Saccular cyst is uncommonly encountered but can cause debilitating or even life-threatening symptoms. Over the years, management of these lesions has changed dramatically, from drainage to marsupialization to external excision.1-6

This study demonstrates that with current, improved endoscopic techniques, these patients can be managed endoscopically with great success rates, without the need for an external approach.

The literature describes only one other series with a similar number of adult saccular cyst patients.2 The current study differs considerably from that report in terms of type of saccular cysts, and their location, management, and outcome. Another report of 7 adult patients describes the feasibility of endoscopic excision in cases of large or recurrent lesions.3 Literature describing saccular cysts in the pediatric population is also sparse, with only 2 series detailing 4 and 17 patients, respectively.4-6

This is the first report in the literature to describe a large number of adult saccular cyst patients treated exclusively with endoscopic excision. The general otolaryngologist should consider endoscopic excision of saccular cysts in their treatment algorithm when managing this uncommon problem.

References