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# Procedures in Family Practice

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## Telescopic Laryngoscopy

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Examination of the larynx is neglected as a regular part of the physical examination by many physicians, largely because of difficulties inherent in the angled-mirror technique of visualizing this area. Simple, relatively inexpensive right-angle telescopes especially designed for laryngoscopy are now available to facilitate this examination. In one study, abnormalities were found in 17 percent of consecutive asymptomatic patients receiving laryngoscopy. This procedure has an important role as a screening procedure and as a diagnostic aid in the workup of patients with laryngeal symptoms. The technique can be readily learned and used in everyday medical practice.

With the exception of the practice of otolaryngologists, the larynx has been widely neglected as a regular part of the physical examination by most physicians, often even when faced with hoarseness as a presenting complaint. There are many reasons for this, but two stand out. First, the limited training and experience in the examination of the larynx most physicians have had during medical school or residency usually involved the use of the angled mirror and head mirror. These techniques in the hands of most nonotolaryngologists are cumbersome and frustrating, soon falling into disuse. Second, until recent years improved instruments and techniques for effective examination of the larynx were not available. This problem has now been resolved with the introduction of simple, relatively inexpensive right-angle telescopes specially designed for laryngoscopy.

The extent to which the larynx is overlooked by

physicians is highlighted by a survey of primary care physicians in Ohio involving more than 1,600 respondents. There it was found that over 70 percent of practicing generalists, family physicians, and internists are unable to visualize the larynx, and less than 4 percent include laryngoscopy as part of the complete physical examination.<sup>1</sup> This common problem has led Klein, an internist with a longstanding interest in the more widespread use of laryngoscopy in everyday medical practice, to observe that "the larynx has become a skeleton in the closet of our medical family, hidden away, shrugged off, and woefully neglected."<sup>2</sup>

The importance of more widespread use of laryngoscopy in primary care is emphasized when laryngeal carcinoma is considered. Although relatively uncommon (1 percent of all cancers diagnosed each year in the United States), it has been estimated that more than 9,000 new cases were diagnosed and 3,300 patients died of this disease in 1978.<sup>3</sup> Unfortunately, diagnosis is delayed for many patients with laryngeal cancer—the average patient with this disease consults three physicians and waits up to eight months before the diagnosis

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is made.<sup>4</sup> About 95 percent of laryngeal cancer occurs in the glottic and supraglottic areas, easily accessible to laryngoscopic examination. The prognosis of many laryngeal tumors is excellent, if recognized and treated early (eg, better than 95 percent cure rate for small, localized carcinomas of the vocal cords), but it progressively worsens the longer diagnosis and treatment are delayed.<sup>5</sup> Early diagnosis is quite possible even while the patients are asymptomatic, since some tumors, especially supraglottic cancers, may grow silently in situ for long periods before causing symptoms.<sup>6</sup> Laryngeal carcinoma is most common in men, usually occurring between 45 and 65 years of age; smoking and excessive alcohol intake have been implicated as risk factors.<sup>5</sup>

### Indications for Laryngoscopy

An excellent case can be made for including telescopic laryngoscopy as a routine part of the complete physical examination of adults. With today's instruments the larynx, hypopharynx, and nasopharynx can be readily visualized in most patients in about one minute. That routine telescopic laryngoscopy is a rewarding procedure even in asymptomatic patients is shown by Klein's experience with 1,000 consecutive examinations in patients without laryngeal symptoms. He found abnormalities in 17 percent of these patients, including nodules, scarred vocal cords, polyps (one malignant), and vocal cord paralysis.<sup>7</sup> Including this procedure as a routine part of the complete physical examination facilitates the examiner's skill with the examination and familiarity with anatomic landmarks of the larynx, hypopharynx, and nasopharynx.

Laryngoscopy is clearly indicated in symptomatic patients with suspected lesions in these areas. Hoarseness of gradual onset persisting over two weeks, especially in the absence of infection, raises the possibility of a laryngeal tumor. A history of smoking further accentuates this possibility. Other symptoms calling for examination of the larynx and hypopharynx include dysphagia, pain (including unilateral sore throat and sensation of "something in the throat"), and hemoptysis. Unilateral serous otitis media in an adult over 40 years of age suggests the possibility of a tumor of the nasopharynx.

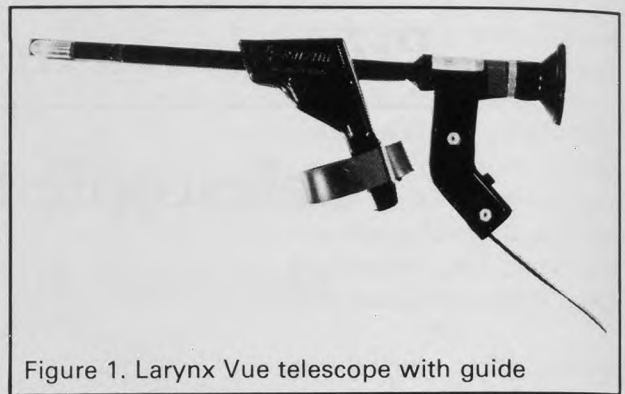


Figure 1. Larynx Vue telescope with guide

### Technique

The Larynx Vue\* is an example of the direct-viewing telescopes now available to primary care physicians at reasonable cost. It is a fixed-focus instrument in focus between 0.5 inch and 3.5 inches with a magnification of three times (Figure 1). It is available in battery-operated and wall-transformer-operated models, and it may be carried in a light, compact case for use outside the office, such as the hospital or emergency room.

Although anesthesia is not required, one may have the patient gargle with viscous lidocaine to deactivate the gag reflex, particularly in anxious patients or those prone to gag easily. In patients unable to gargle, spraying the pharynx with 1 percent tetracaine (Pontocaine) provides adequate anesthesia for this examination: patients so treated should be warned that because gagging is impaired, food should be avoided for two hours after the examination. A patient who wears dentures should be asked to remove them before the examination is begun.

A guide is provided with the Larynx Vue for the purpose of steadying the advancing instrument while holding the patient's tongue with the same hand. Some examiners prefer not to use this guide. In the office the patient is seated on the examining table and asked to open the mouth wide, extend the tongue, and breathe gently through the mouth. The examiner uses a sterile gauze square to hold the extended tongue with one hand (Figure 2). The instrument is advanced under direct vision through the mouth, avoiding contact with the

\*Available for about \$500 from Astralite Medical Diagnostic Products, 4378 East La Palmer Avenue, Anaheim, California 92807

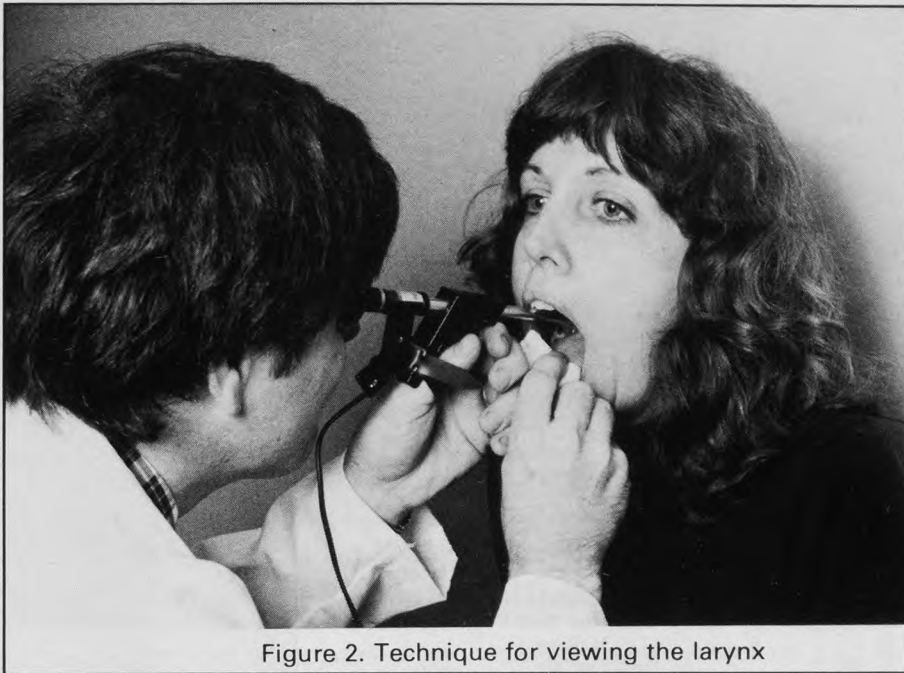


Figure 2. Technique for viewing the larynx

tongue or palate, if possible. When the end of the laryngoscope reaches the base of the tongue, the examiner shifts his eye to the ocular and asks the patient to say "E" in a continuous high pitch. Minimal forward progress of the instrument should then bring the epiglottis and larynx into view. One can observe vocal cord function by asking the patient to alternately breathe and phonate. Once examination of the hypopharynx and larynx is completed, the instrument is rotated 180 degrees to permit visualization of the nasopharynx.

With minimal experience and practice, one can achieve clear visualization of the larynx, hypopharynx, and nasopharynx in the majority of patients. Even without anesthesia, gagging can usually be avoided if the laryngoscope does not contact the tongue or posterior pharyngeal wall. Although fogging problems are usually absent or minimal, if the lens fogs, the instrument should be withdrawn and the tip wiped on the patient's tongue or wiped clear before reinsertion. In the few cases in which adequate visualization cannot be obtained, an overhanging epiglottis, tongue prominence, or excess gagging is usually responsible.

Larynx Vue does not require autoclaving after use. The telescope can be cleaned adequately by wiping it thoroughly with a soaked alcohol sponge.

## Comment

Telescopic laryngoscopy is now a practical, useful, and cost-effective office procedure for all primary care physicians. It permits the physician to perform a definitive procedure in the evaluation of disorders of the larynx, hypopharynx, and nasopharynx, including malignant disease in which early diagnosis is required for optimal prognosis. In such cases, immediate referral for precise diagnosis and treatment is essential. The widespread use of this diagnostic instrument by primary care physicians holds the promise of reducing morbidity and mortality from serious diseases, particularly cancer of the larynx, hypopharynx, and nasopharynx.

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