SURVEY OF CLINICAL INDICATIONS AND USAGE OF TRANSNASAL ESOPHAGOSCOPY

Since the introduction of the distal-chip esophagoscope in 2000, trans-nasal esophagoscopy (TNE) utilizing topical anesthesia has become an accepted and well-tolerated technique to investigate, diagnose, and treat esophageal pathologies in the clinic setting. When compared to traditional upper endoscopy, TNE has been found to have equivalent diagnostics and safety, but reduced cost overall and side effects associated with intravenous sedation necessary for traditional endoscopy. Though the benefits of TNE are fairly well understood, the indications for TNE are described by a relatively small number of practitioners with extensive experience with TNE, and studies evaluating the current indications and practices for TNE across a broader population do not exist. Such information can help to identify barriers to implementation, areas for expansion, and clinical decision-making to help physicians appropriately utilize TNE. The aim of this cross-sectional survey study is to identify the demographics of otolaryngologists utilizing TNE, indications for use, and clinical findings that affect decision making.

SECTION I: GENERAL INFORMATION

1. How long have you been in practice since completion of your training?

    a. 0-5 years
    b. 6-10 years
    c. 1-15 years
    d. 15-20 years
    e. 20-25 years
    f. Greater than 25 years

2. What is the setting of your practice?

    a. Academic
    b. Private with academic affiliation
    c. Private only
    d. Military
    e. Retired (former practice type) _____
    f. Other (please describe) _____

3. Your area of practice is best described as:

    a. Large urban (population > 300,000)
    b. Medium urban (100,000-300,000)
    c. Small urban (20,000-99,999)
    d. Town (5,000-19,999)
    e. Rural (< 5,000)
    f. Other (please describe) _____

4. Please indicate if you have completed fellowship training in any of the following disciplines. Select all that apply.

    a. Laryngology

b. Head and neck surgery
c. Pediatric otolaryngology
d. Rhinology
e. Facial plastics and reconstructive surgery
f. Otology/neurotology
g. Allergy
h. Thyroid/parathyroid surgery
i. Sleep medicine
j. No fellowship training

5. What percentage of your clinical practice is devoted to laryngology or broncho-esophagology?

a. 0-25%
b. 26-50%
c. 51-75%
d. > 75%

6. Do you perform office-based trans-nasal esophagoscopy (TNE)?

a. Yes*
b. No**

*If yes, skip to Section II and complete questions 9 through 19 (Sections II-V) to complete the survey
**If no, continue with questions 7 & 8 to complete the survey (Do NOT complete Sections II-V)

7. If you never perform TNE, would you like to do so for your patients?

a. Yes
b. No

8. If you never perform TNE, what are the limitations to implementation? (Select all that apply)

a. Lack of training
b. Lack of equipment
c. Inadequate funding for equipment
d. Not indicated for use in my patient population
e. Other (please specify) _____

SECTION II: INDICATIONS FOR TNE

9. The approximate average number of TNE procedures I perform per month for all indications is _____

10. I perform TNE for the following indications (select all that apply):

Diagnostic:
a. Laryngopharyngeal reflux (LPR)
b. Gastroesophageal reflux disease (GERD)
c. Dysphagia
d. Globus pharyngeus
e. Chronic cough
f. Screening for head and neck cancer
g. Surveillance for head and neck cancer
h. Poor tracheoesophageal speech following total laryngectomy

Procedural:

i. Biopsy of abnormal lesion
j. Foreign body removal
k. Esophageal balloon dilation
l. Tracheoesophageal puncture
m. Placement of a wireless pH monitoring device
n. Percutaneous endoscopic gastrostomy tube placement
o. Surveillance with biopsy for Barrett's esophagus
p. Botulinum toxin injection into the upper esophageal sphincter
q. Botulinum toxin injection into the lower esophageal sphincter

SECTION III: TNE AND LARYNGOPHARYNGEAL/GASTROESOPHAGEAL REFLUX

11. In patients with LPR or GERD by history and/or objective measures (pH probe studies, manometry, radiographic studies), I perform TNE for (select all that apply):

	LPR	GERD
a. Patients with new diagnoses		
b. Patients with recalcitrant disease		
c. I do not routinely perform TNE on patients with LPR or GERD		

12. In patients with LPR or GERD by history and/or objective measures, I perform TNE:

	LPR	GERD
a. Prior to initiation of treatment		
b. Simultaneous to initiation of treatment		
c. After failed medical treatment only		
d. After medical treatment regardless of success or failure		

13. If you perform TNE after initiation of medical treatment regardless of success or failure, how many weeks after initiation of treatment do you perform TNE?

a. Less than 1 month
b. 1-3 months
c. 3-6 months
d. Greater than 6 months
e. No specific timeframe
f. N/A

14. If you perform TNE after failed medical treatment only, how many weeks after initiation of treatment do you perform TNE?

a. 1-3 months
b. 3-6 months
c. Greater than 6 months
d. No specific timeframe
e. N/A

15. For each of the following associated historical findings, please rate the influence on your decision to perform TNE:

	No change	More likely
a. History of long-standing LPR symptoms (>6 months)		
b. History of LPR exam findings		
c. History of LPR based on pH/impedance testing		
d. History of long-standing GERD symptoms (>6 months)		
e. History of GERD based on pH/impedance testing		
f. History of abnormal findings on esophageal endoscopy		
g. History of hiatal hernia		
h. Advanced age		
i. Smoking history		

16. In patients with long-standing LPR or GERD symptoms, what symptom duration affects your decision to proceed with TNE?

a. >6 months
b. >1 year
c. >3 years
d. >5 years
d. No specific timeframe
f. Long-standing symptoms do not influence my decision to perform TNE

17. In patients with "advanced age", at what age would you be more likely to consider performing TNE?

a. > 40 years
b. > 50 years
c. > 60 years
d. > 70 years
e. > 80 years
f. Advanced age does not influence my decision to perform TNE

SECTION IV: TNE AND DYSPHAGIA

18. In patients with dysphagia by history and/or objective measures, I perform TNE for (select all that apply):

a. Patients with solid and/or liquid dysphagia
b. Patients with solid dysphagia only
c. Patients with dysphagia that localizes to the esophagus by history
d. Patients with dysphagia and abnormal esophageal findings by MBSS and/or esophagram
e. I do not routinely perform TNE for patients with dysphagia

SECTION V: TNE AND HEAD & NECK CANCER SURVEILLANCE

19. In patients with head and neck cancer, I perform TNE for surveillance of lesions of the following primary sites (select all that apply):

a. Nasal cavity & paranasal sinuses
b. Nasopharynx
c. Oral cavity

d. Oropharynx
e. Hypopharynx
f. Supraglottic
g. Glottic
h. Subglottic
i. Esophageal
j. I routinely perform TNE for surveillance of all head and neck cancer sites
k. I do not perform TNE for surveillance of head and neck cancer