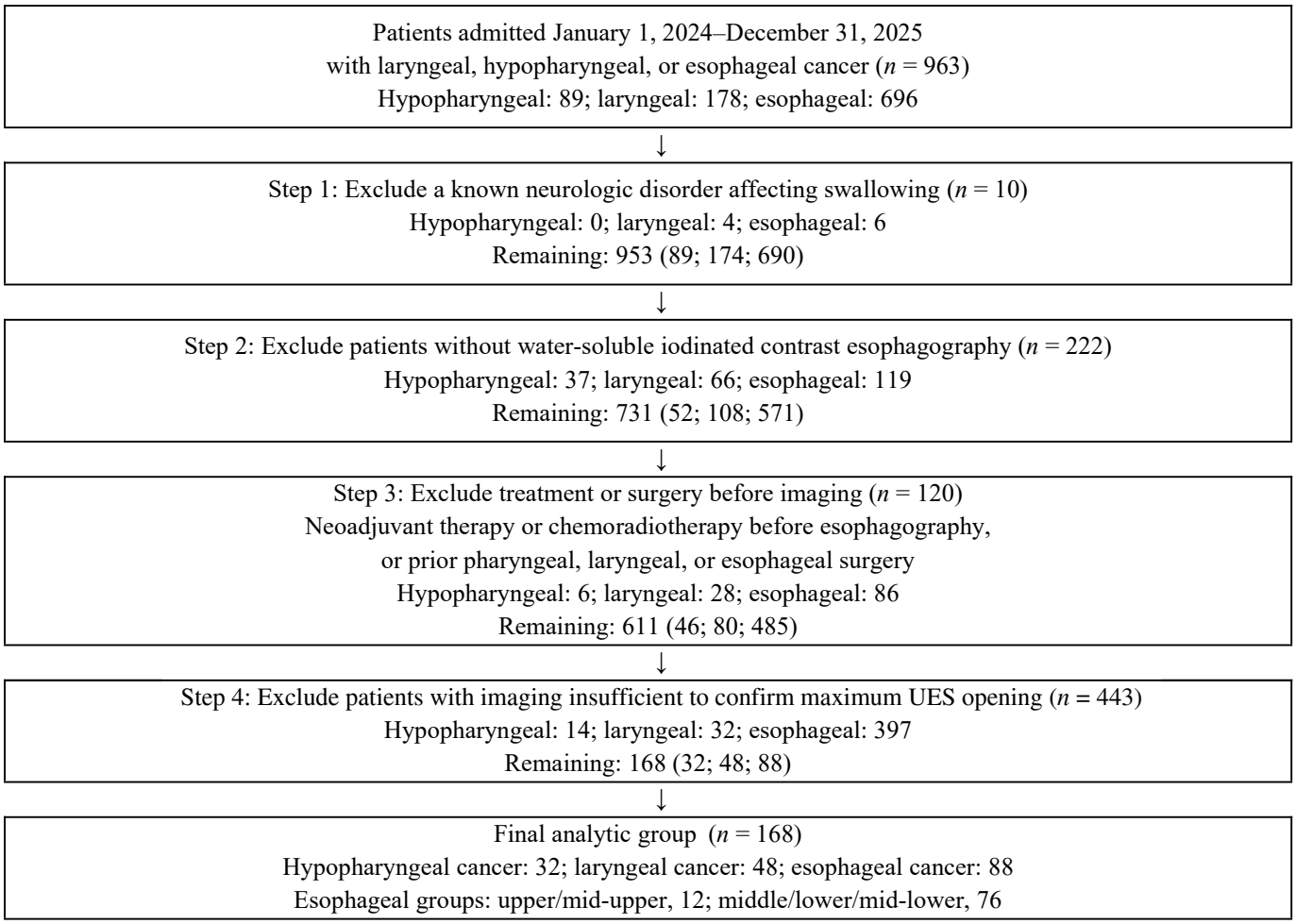
Pretreatment Upper Esophageal Sphincter Opening Diameter on Water-Soluble Contrast Esophagography: Differences by Tumor Site and Swallowing-Related Symptom Documentation

Dysphagia | Online Resource 2

Online Resource 2

Fig. S1 Patient screening and selection



Counts in parentheses after "Remaining" are ordered as hypopharyngeal, laryngeal, and esophageal cancer. Insufficient imaging included nonvisualization of the pharyngoesophageal segment, inability to localize the UES reliably, or an incomplete swallowing sequence preventing confirmation of maximum opening. UES, upper esophageal sphincter.

Table S4 Overview of analysis populations

All analysis populations derive from the same 168-patient sample. Subgroups overlap and should not be added together.

Analysis	*n*	Population and derivation
Tumor-location comparisons	168	All eligible patients: 32 hypopharyngeal, 48 laryngeal, and 88 esophageal cancers.
Clinical subgroup and three-category symptom comparison	80	32 hypopharyngeal and 48 laryngeal cancers; 29 explicit denials, 19 undocumented, and 32 documented symptoms.
Adjusted clinical-factor analyses	74	Complete age, BMI, and albumin data among the 80 patients; 28 hypopharyngeal and 46 laryngeal cancers.
Primary binary symptom comparison and reduced logistic models	61	80 minus 19 with undocumented symptoms: 29 explicit denials and 32 documented symptoms.
Primary logistic symptom model	55	61 minus 6 with missing BMI: 28 symptom events and 27 explicit denials; adjusted for cancer type, age, and BMI.
Alternative symptom-definition logistic model	74	80 minus 6 with missing BMI; 28 symptom events. Undocumented records combined with explicit denials.
pTNM stage comparison of UES diameter	70	Surgically treated patients: 28 early-stage and 42 locoregionally advanced.
pTNM stage comparison of symptoms	52	70 minus 18 with undocumented symptoms; 20 early-stage and 32 advanced; 24 symptom events.
pTNM stage-adjusted linear regression	64	70 surgical patients minus 6 with missing BMI; model includes cancer type, age, BMI, albumin, and stage group.
Combined pTNM/cTNM sensitivity analyses	80 / 61 / 74	Adding 10 nonsurgical cTNM cases gives 80 for diameter, 61 for symptoms, and 74 for adjusted linear regression.
Intraobserver and interobserver reproducibility	50	Randomly selected examinations from the 80-patient clinical subgroup; the same 50 examinations in both assessments.

BMI, body mass index; cTNM, clinical TNM; pTNM, pathologic TNM; UES, upper esophageal sphincter; *n*, number of patients. Explicit symptom documentation comprises documented symptoms or an explicit denial. Missing values were not imputed.