



Trends in the Management of Laryngotracheal Stenosis

Jacob Benedict, MD, PGY-4; Benjamin Rubinstein, MD; John Sinacori, MD;
Pranav Baderdinni MS2; Shaan Sharma MS2
EVMS

Objectives:

Laryngotracheal stenosis (LTS) is a life-threatening fixed narrowing of the extra thoracic trachea and/or laryngeal structures. LTS can occur in a variety of age groups and locations. The varying severity, location and etiologies make this disease process especially challenging. The objective of this study is to evaluate the trends in management and etiologies of LTS at Eastern Virginia Medical School (EVMS) to improve understanding of the natural history of this disease.

Materials and Methods:

CPT codes and OR records were used to retrospectively identify patients with LTS who underwent endoscopic airway surgery at EVMS. Patients were included if they underwent endoscopic airway stenosis dilation or excision. The anesthesia and surgical techniques were recorded as well as demographic information including etiology of stenosis. Number of procedures, interdilation intervals, procedure time, hemodynamic trends were calculated.

Results:

The predominant etiologies for LTS were iatrogenic and idiopathic. A majority of patients underwent balloon dilation, of those patients most had additional interventions including Kenalog injection or CO2 laser excision. Mitomycin C was only used in a small portion of the patients. Intermittent apnea was used in a majority of operations, a smaller percentage utilized jet ventilation. A cohort of patients who underwent jet ventilation had to convert to intermittent apnea, a smaller portion had to convert from apnea to jet ventilation.

Conclusions:

The demographics and treatment techniques are variable, but balloon dilation remains the most common technique at our institution. Intermittent apnea is the most commonly utilized ventilation technique for endoscopic surgery at EVMS.