

Quickshot Presentation 5

Tracheal Resection and Anastomosis: A Unique Perspective from A Single Level One Trauma Center and Tertiary Referral Center

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Introduction: Subglottic and tracheal stenosis is a pathology that plagues multiple disciplines and only became more of an issue during the COVID-19 pandemic. At our institution as the only Level 1 Trauma Center in the state and tertiary referral center with multidisciplinary care, we are adequately posed to treat this disease process surgically. It is our hypothesis that our patient population displays unique traits that make managing this disease process more complex, however it is our methods that make this adaptable and complication rates on par or below other centers despite this complexity. Here we describe a retrospective cohort from 2000 to 2025 who underwent tracheal resection and anastomosis at the University of New Mexico.

Methods: After obtaining IRB approval, a retrospective review of all charts of patients ages 18-99 years of age who underwent tracheal resection from 2/2000-2/2025 was performed. We included 50+ patients who underwent open tracheal resection or laryngotracheal resection, excluding those who only had endoscopic resection of disease. Here we noted their comorbidities, distance from Albuquerque, etiology of their tracheal stenosis and differentiating these patients into cancerous and non-cancerous etiologies, grade of stenosis primary language/ethnicity, age at time of resection, whether or not pre-operative interventions were done to help secure their

airway or prepare for the resection, unique adaptations/approaches taken in their resection and anastomosis, duration of hospitalization following surgery, complications and further procedures. Statistical analysis and data gathering is still underway but our preliminary results from the first half will be reflected in the results.

Results: Preliminary results show an average age of our cohort is 45.6, median of 47 years of age with a great preponderance being male (60%). The most frequent comorbidities include tobacco use (>50%), gastro-esophageal reflux disorder (33%), and type II diabetes (33%). Our patient population has prolonged intubation as a result of traumatic injuries (25%) which likely led to tracheal stenosis as a higher percentage than in other papers. Nearly two-thirds of our patients required a pre-operative tracheostomy which serves as a surrogate indicator of the severity of their stenosis and need for surgical intervention. Our average length of stay was 4.5 days with a median of 3 days post-operatively. Finally we've seen initially that the majority of our patients have had few major complications including death and those who required a postoperative tracheotomy (3 patients).

Conclusions: Pending results, ours is a medium sized study with a population that is diverse with most living in rural New Mexico. Still the majority of our patients have avoided major complications such as death, and two patients have needed to have tracheostomies postoperatively. Minor complications such as need for further dilation have occurred but are few.