DRC4: Advanced Laryngotracheal Stenosis Patients in a Tertiary Government Hospital: Clinico-etiologic profile, Management & Outcome (A Preliminary Study)

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OBJECTIVES:

- To elucidate the clinical profile of patients with laryngotracheal stenosis over a 2-year period.
- To assess the outcome following various surgical interventions based on site & cause of stenosis.

METHODS:
DESIGN: Prospective Case Series Design
SETTING: Tertiary Government Hospital
PARTICIPANTS: Five (5) patients with laryngotracheal stenosis confirmed by laryngotracheoscopy.

RESULTS: Five (5) patients were included and evaluated in the study from June 2016 to June 2018. All of the patients belonged to the adult age group with a median age of 28 years. There were four (4) males (80%) and one (1) female (20%) in the study. Laryngotracheal stenosis following prolonged intubation was seen in four (80%) patients while prolonged tracheotomy was seen in one (20%) patient. Presentations of stenosis include dyspnea (n=3) and failure to decannulate (n=2). The duration of ET intubation ranges from 14 – 60 days. Two patients had a stenosis length of 3 cm while the three others had 1.5 cm. From the five (5) patients, three had grade IV stenosis while the two (2) had grade III stenosis. Among the intubated patients, two (40%) had grade III and two (40%) had grade IV stenosis based on the Cotton-Myer Classification System. Subglottis was the commonest site (n=3) followed by combined subglottis & tracheal stenosis (n=2). Among the intubated patients, 60% of them occurred in the subglottic region (n=3) while 20% showed combined subglottis & tracheal stenosis (n=1). Post-intubation injury commonly resulted in subglottic stenosis (60%) whereas blunt (i.e. strangulation & clothesline injury) most commonly resulted in combined subglottic and tracheal stenosis (40%). Two patients (40%) underwent open surgical approach while three (60%) underwent endoscopic dilatation procedure. Eighty percent (80%) of the patients (n=4) had a successful decannulation while one is still on tracheostomy. None of the patient had post-operative complications.

CONCLUSION: Laryngotracheal stenosis is a challenging entity that resulted from heterogenous causes of pathophysiologic processes. Categorizing stenosis and measuring stenosis length helps in treatment planning and predicts surgical outcome. Understanding the mechanism of injury is critical to individualized patient-centered treatment and preventive strategies.

KEYWORDS: laryngotracheal stenosis, laryngotracheal reconstruction, tracheal resection anastomosis