

IATROGENIC TRACHEAL STENOSIS: ANOTHER CAUSE OF PERSISTENT DYSPNEA AFTER COVID-19

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INTRODUCTION

During the COVID-19 pandemic, the number of patients who required admission to the intensive care unit (ICU) and prolonged intubation (ETI) or a tracheotomy (TT) due to severe acute respiratory distress syndrome (ARDS) has increased.

Causes of persistent dyspnoea after severe COVID-19 pneumonia include diffuse interstitial lung disease and pulmonary embolism. However, other causes of persistent dyspnoea need to be ruled out in COVID-19 ICU-survivors, including tracheal stenosis (TS).

Iatrogenic TS account for 50% of the 15-20 patients evaluated every year in the laryngotracheal multidisciplinary team (MDT) of our center. The management of these patients requires an individualized and multidisciplinary assessment, including Interventional Pulmonologists, Thoracic Surgeons and Otolaryngologists.

AIM

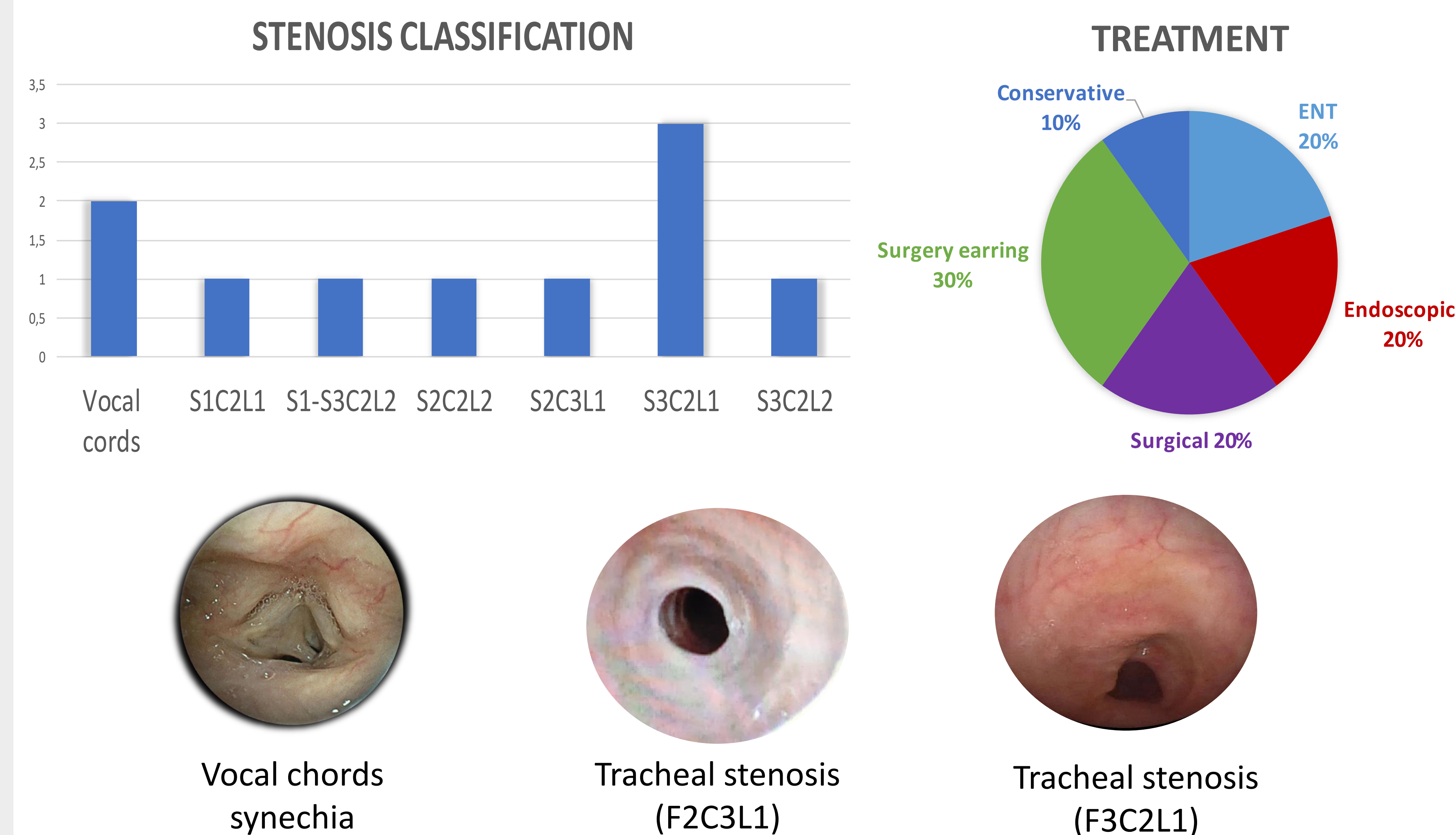
The objective of this study was to describe the cases of iatrogenic TS after severe pneumonia due to COVID-19.

MATERIAL AND METHODS

A descriptive study of the cases of iatrogenic TS in COVID-19 ICU-survivors evaluated at our center's MDT, from the end of the first wave to present.

RESULTS

A total of 10 patients were included, 70% were women, with a mean age of 60 years [53.5-64.5]. The mean ICU stay was 58.5 days [34-91]. All patients were intubated and 9 of them (90%) required TT, in 2 cases due to extubation failure. Symptoms at diagnosis included dyspnea in 3 (30%), stridor in 6 (60%) and 1 (10%) was asymptomatic. TS location was glottic in 2 (20%) and tracheal in 8 (80%). The main cause of TS was ring fracture secondary to TT (40%).



Variable	Value	
Age (years)	60 [53.5 – 64.5]	
Sex (woman), n (%)	7 (70%)	
Active smoker, n (%)	1 (10%)	
Hypertension, n (%)	5 (50%)	
Dyslipidaemia, n (%)	5 (50%)	
Mellitus diabetes, n (%)	3 (30%)	
Body mass index	31.55 [25.8 – 35]	
Pneumopathy	No, n (%)	6 (60%)
	COPD, n (%)	1 (10%)
	Asthma, n (%)	1 (10%)
	Sleep apnoea, n (%)	2 (20%)
ICU days	58.5 [34 – 91]	
ETI days	16 [12 – 30]	
TT days	53.5 [15 – 98]	
TT type	No, n (%)	1 (10%)
	Percutaneous, n (%)	8 (80%)
	Surgical, n (%)	1 (10%)
Symptoms	No	10% (1)
	Stridor	60% (6)
	Dyspnoea	30% (3)

CONCLUSIONS

Iatrogenic TS is a rare cause of dyspnea in COVID-19 ICU-survivors, but it must be considered in these patients given the high number of patients who required prolonged ETI or TT during the COVID-19 pandemic.