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EC PULMONOLOGY AND RESPIRATORY MEDICINE

Editorial

Post-Intubation Tracheal Stenosis in Non-Severe and Severe COVID-19 Patients

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Received: December 23, 2022; **Published:** December 26, 2022

Acute respiratory distress syndrome (ARDS), the most common and severe complication in COVID-19 patients requires ventilation and oxygen therapies [1]. A previous study from China indicated that invasive mechanical ventilation (IMV) was required between 9.8 and 15.2% of the patients [2]. Median duration of mechanical ventilation of 17 days and high frequent re-intubation were found in COVID-19 patients [3,4]. Several previous studies lastly revealed the association between obesity (a proven risk factor for benign subglottic/tracheal stenosis (SG/TS) and required-IMV-COVID-19 patients [5]. Approximately, 10 - 22% of non-COVID-19 patients were reported of SG/TS [6]. Currently, experiences in SG/TS in COVID-19 scenario are still not demonstrated [1]. Hypothetically, after extubation, a SG/T cicatricial concentric stenosis (Figure 1) [1] in a number of these patients, including long-COVID-19 will be developed and differential diagnosis of SG/TS with other pulmonary or tracheobronchial diseases could be significantly played by high-resolution-computed tomography (HRCT) (Figure 2) [6,7]. Consensus about the best therapy strategy for SG/TS is still not developed [1].

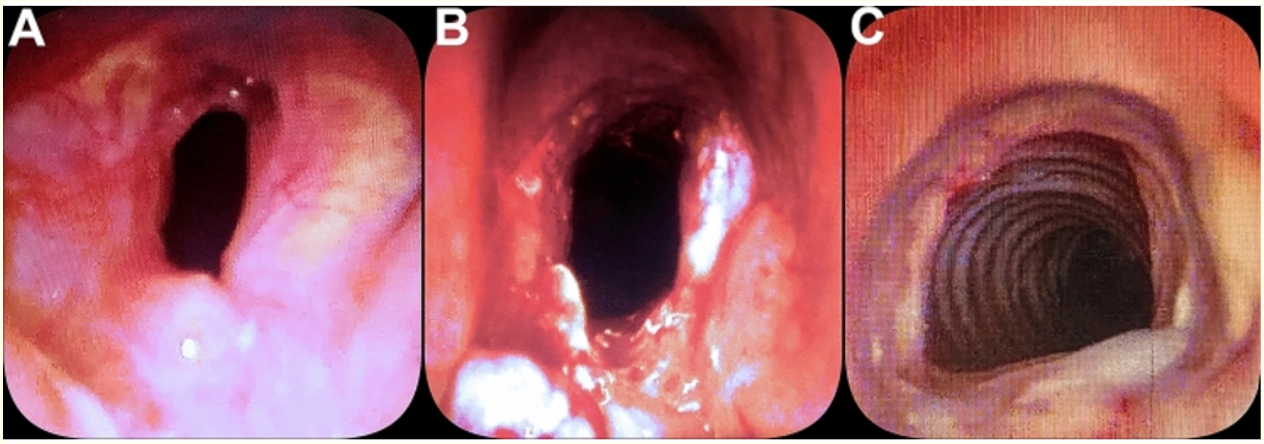

Figure 1: *A-Tracheoscopy. Circumferential cicatricial tracheal stenosis. Cotton-Meier grade 3; B-Bronchoscopy. Anatomic result immediately after endoscopic balloon dilation. The airway patency is restored. C-Endoscopic assessment 2 months after surgery [1].*

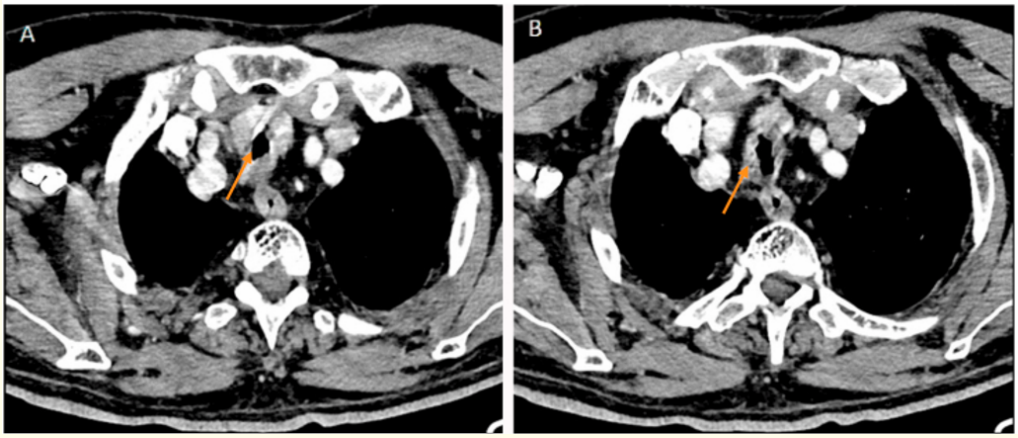

Figure 2: *CT scan findings for case 2. A significant tracheal stenosis after 2 months of intubation due to SARS-CoV-2 infection (A, B arrows) [7].*

In conclusion, in recovered COVID-19 patients with breathing difficulties after mechanical ventilation weaning should be highlighted suspecting tracheal stenosis (SG/TS), whereas the management is similar to general tracheal stenosis.

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Volume 12 Issue 1 January 2023