



**Laryngotracheitis and Cricoid Abscess Complicating Posterior Glottic Stenosis
Following Prolonged Intubation for COVID-19**
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Objectives:

Posterior glottic stenosis is a known complication of prolonged intubation. Those patients with COVID-19 infection appear to have a propensity toward prolonged cartilaginous infection, abscess, and granulation formation. The objective of this case series is to present three patients with posterior glottic stenosis and associated inflammation following COVID-19 infection that required prolonged intubation.

Materials and Methods:

This is a retrospective case series of three patients with COVID-19 infection that required prolonged intubation and presented with post-intubation sequelae of chronic laryngotracheitis in the setting of posterior glottic and subglottic stenosis.

Results:

These three patients had respiratory failure in the setting of COVID-19 infection and required a prolonged intubation (>7 days). All patients presented with shortness of breath and stridor after discharge from their hospitalization with COVID-19 infection. All patients required tracheostomy during their management. Imaging showed signs of chondritis and abscess of the cricoid to varying degrees. Microdirect laryngoscopy featured substantial granulation as well as evidence of posterior glottic and subglottic scarring and stenosis. Debridement of the granulation tissue yielded thin purulent drainage at the posterior cricoid. All patients had a protracted course, some with involvement of infectious disease consultation for multi-drug resistant bacteria.

Conclusion:

The COVID-19 pandemic continues to devastate the United States with persistently high rates of new cases, deaths, and hospitalization. Patients with prolonged intubated are at risk for developing many laryngologic complications, but infection with Sars-CoV-2 may lead to heightened levels of inflammation causing laryngotracheitis and cartilage abscess requiring prolonged antibiotics and multiple surgeries.