
Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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# Procedures

**SESSION TITLE:** Procedures Posters
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## FIBER-OPTIC BRONCHOSCOPY IN PATIENTS INFECTED WITH COVID-19: A CASE SERIES

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**PURPOSE:** Bronchoscopy is a safe diagnostic and therapeutic tool. Considering the increased number of COVID-19 cases worldwide, several associations issued guidelines regarding performance of bronchoscopy in patients with suspected/confirmed infection. We present a series of patients with COVID-19 who underwent bronchoscopy.

**METHODS:** Retrospective review of patients admitted to BronxCare Health Hospital from April to May 2020 who had COVID-19 pneumonia and required emergent/urgent bronchoscopy. We included only patients with positive nasopharyngeal swab test (SARS Coronavirus with CoV-2 RNA, Qual RT-PCR). Demographics and clinical- radiological information was obtained. A safety check list was created which included all features recommended in current guidelines. The additional recommendations included: bronchoscopy should be performed with patients sedated on ventilator; Stryker's Hood Flyte Peel Away to be used to complement standard PPE; ventilator placed on stand-by every time patient is disconnected ie to connect/remove bronchoscopy adaptor, to insert/remove bronchoscope. Once scope has been introduced into the airway, the procedure should be expedited as quickly as possible to minimize withdrawal and reintroduction of scope.

**RESULTS:** Six patients underwent bronchoscopy, 67% males, mean age 43 (range 29-80 years old). All patients had bilateral infiltrates on CXR. Mean time from initial symptoms to bronchoscopy was 33.5 days (range 2-73 days) One patient was intubated for the bronchoscopy; the remaining 5 were on mechanical ventilator for respiratory failure. Indication for bronchoscopy was lung collapse in 2 and persistent sepsis and fever despite antibiotics and negative cultures in the remainder 4 patients. Bronchoscopy with bronchoalveolar lavage (BAL) was performed in all patient. BAL fluid tested positive for SARS Coronavirus in 4 patients and 3 patients had positive bacterial cultures including identification of a multi-drug resistant pathogen. The lung expanded in patients with collapse and change in antibiotics was done in 50% of patients based in BAL results. Checklist was followed for all bronchoscopies; all personnel involved were followed for three weeks with daily temperature checks and symptoms monitoring. Nobody has shown any symptoms of COVID-19 infection; neither had prior infection.

**CONCLUSIONS:** Bronchoscopy in patients infected with COVID-19, performed following strict safety measures are potentially safe and can help with patient care. Emergency/ urgent procedures should not be delayed as bronchoscopy could change management in those patients. Implications of finding positive BAL for COVID-19 are unclear but patients potentially are still infective.

**CLINICAL IMPLICATIONS:** We suggest careful evaluation of risk versus benefit of the bronchoscopy and strict, simple and standardized techniques for procedure performance in order to minimize risk of transmission.

**DISCLOSURES:** No relevant relationships by Gilda Diaz-Fuentes, source=Web Response

No relevant relationships by Gabriella Roa Gomez, source=Web Response

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