

Category : **Respiratory: airway management/CPAP**

A137 - Percutaneous tracheostomy in patients with covid-19 supported by ecmo

AL Shehatta¹; H Elmelliti²; D Mutkule¹; M Imran¹; N Shallik³; AA Hssain¹

¹Hamad General Hospital , MICU, Doha, Qatar, ²Hamad General Hospital , Emergency Department , Doha, Qatar, ³Hamad General Hospital , Anaesthesia , Doha, Qatar

Introduction:

Bleeding after percutaneous dilatational tracheostomy (PDT) in patients on ECMO is reported at 40% [1-3]. There is little literature regarding the safety of PDT for patients with COVID-19 on ECMO. The primary objective is to assess the safety of PDT in COVID-19 patients on ECMO. Secondary objectives are complications within 48 hours, healthcare workers (HCWs) cross infection

Methods:

A single centre retrospective review of electronic ICU data of adult patients with confirmed COVID-19 infection supported by ECMO at Hamad General Hospital, Doha-Qatar from 01/03/20 to 01/01/21. The study is approved and individual consent was waived (MRC-01-21-037)

Results:

A total of 34 patients received ECMO for severe COVID-19. 17/34 underwent tracheostomy. 1/17 underwent surgical tracheostomy is excluded from final analysis. In 14/16 patients; the median duration of anticoagulant infusion hold prior to PDT was 7 hours (IQR 7-15.8). No major complications were observed within 48-hours. 12/16 experienced none to mild bleeding); 19% (3/16) experienced moderate bleeding (obvious bleed with upto 1 gram/dL drop of hemoglobin and/or require at least 1 unit of blood product transfusion); and 6% (1/16) experienced severe bleeding within 48 hours of PDT (a drop of 2+ grams of hemoglobin/dL; needed 2 or > transfusion units or surgical intervention). 4/16 of the COVID-19 patients had a positive PCR test result on the day of PDT. Each PDT involved 3 HCWs: an operator, a respiratory therapist and an ECMO nurse specialist. None of the HCWs involved tested +ve for the virus within 2-weeks post PDT

Conclusion:

25% of patients suffered moderate to severe non-life-threatening bleeding. None of ICU involved HCWs suffered COVID-19 transmission. Experienced operator, minimal trauma and strict adherence to PPE are essential. Extended research including larger sample size may further support the safety of PDT in COVID-19 patient ECMO.

References:

1. Braune S, et al. ICM. 39:1792-9, 2013
2. Kruit N, et al. JCVA. 32:1162-6, 2018
3. Salna M, et al. ASAIO J. 66:652-6, 2020