

Covid Oral Presentations

O31 Central venous access in ventilated COVID-19 patients: a vascular surgery perspective

P. Liu, D. Lui, S. M. Cheema, S. T. Hussain, T. Husain and M. Malina
West London Vascular and Interventional Centre, Northwick Park Hospital,
Harrow

Presenting Author Email: perryliu95@gmail.com

Introduction: The number of patients on intensive care units (ICU) increased manifold during the initial COVID-19 surge and medical staff were relocated to help compensate. The need for central venous catheters (CVCs) increased accordingly and comprised a significant workload under challenging circumstances. Several models were proposed to manage the lines. We assigned a vascular team of vascular surgeons and interventional radiologists for CVCs in ICU. We report on the workload, outcomes and lessons learned.

Method: 50 consecutive ventilated COVID-19 patients in ICU (median age 63 years, 80% male) who had a CVC inserted by the vascular team from March to May 2020 were assessed. Median follow up was 18 days (range 14–29 days) after ICU admission.

Result: 166 CVCs (80 VasCaths) were inserted. Femoral access was preferred. Each patient required a median of 3 lines (IQR 2–4). CVCs were exchanged after median 7 days (IQR 4–9) for thrombosis (35%), infection (24%) or prophylactically (41%). Our learning curve included the establishment of an online referral pathway, CVC teams of two operators, extended disposable CVC kits and ICU based ultrasound scanners. Additional staffing and retraining were avoided. There were no technical complications.

Conclusion: Ventilated COVID-19 patients require multiple CVCs which is a challenging workload during a pandemic. Vascular surgeons and interventional radiologists with endovascular skills are well positioned to perform central venous cannulation to alleviate the burden on critical care teams. Our lessons learned can help to provide a safe and efficient model amidst the ongoing national outbreaks.

Take-home Message: With the postponement of many elective vascular procedures during the pandemic crisis, the involvement of vascular surgeons in a dedicated Lines team is an important way that they can contribute given their proficiency with wires and cannulation equipment, as well as familiarity in femoral triangle and jugular anatomy. The retraining of staff and additional on-call rotas can then be avoided.