

## HYBRID CIAGLIA PERCUTANEOUS TRACHEOSTOMY WITH SURGICAL ASSISTANCE IN PATIENT UNDERGOING CONTINUOUS HEPARIN INFUSION

Antolini R.<sup>1</sup>; Vitali E.<sup>1</sup>; Perini G.<sup>1</sup>; Pacini C.<sup>1</sup>; Santoni F.<sup>1</sup>; Salvucci Salice A.<sup>1</sup>; Pesaresi L.<sup>1</sup>; Carsetti A.<sup>1-2</sup>; Donati A.<sup>1-2</sup>

1) Department of Biomedical Sciences and Public Health, Università Politecnica delle Marche, Ancona, Italy

2) Clinica di Anestesia e Rianimazione Generale, Respiratoria e del Trauma Maggiore, AOU delle Marche, Ancona, Italy

### BACKGROUND

Percutaneous Ciaglia tracheostomy is one of the most frequent percutaneous technique that allows the placement of the tracheal cannula; it is made by an exploratory puncture at the level of second-third tracheal space under bronchoscopic guidance with a needle.

Bedside percutaneous tracheostomy has been shown to be safe and effective as the surgical technique, with the advantage of being technically simple and inexpensive. However, the procedure can mask many pitfalls that can cause unwanted consequences due to the numerous structures in the anterior portion of the neck.

After a NIV trial in a sub intensive ward, a 52-year-old patient with BMI 36.2 was admitted to the intensive care unit for Covid-19 related ARDS. Orotracheal intubation was performed at ICU admission, and then on the 2nd day of mechanical ventilation, V-V ECMO was started as well as the anticoagulant therapy with continuous infusion of heparin; on the 49th day of mechanical ventilation, percutaneous tracheostomy was planned, but an ultrasound of the neck performed as a preliminary evaluation to the procedure revealed the presence of peritracheal arterial and venous vessels at the midline. Given the difficulty related to the patient's coagulation status, it was decided to proceed with the assistance of the maxillo-facial surgeon, who made a skin incision of about 2 cm, 1 cm above the jugular, dissected the planes with divergence of the left anterior jugular vein, dissected and coagulated the vessels proximal to the trachea, and freed and proximally relocated the thyroid. At this point, Ciaglia tracheostomy was performed under bronchoscopic guidance.

### CASE REPORT

### CONCLUSION

Despite unfavorable anatomy and the high risk of bleeding, along with the maxillo-facial surgeon, Ciaglia tracheostomy was successfully performed without complications of any kind. This avoided the perilous transport of a patient infected by Covid-19 and treated with ECMO to the operating room.

