

## Peer Review File

Article information: <http://dx.doi.org/10.21037/jtd-20-1962>.

### Reviewer A

I read the letter with a great interest.

It points an important complication of HELMET mask due to its belts that compress axillary vascular tissues.

It is clinically relevant to report.

### Reviewer B

The manuscript discusses the use of helmet-CPAP at the expense of increased risk of venous thromboembolism. The authors found that helmet CPAP application in two patients diagnosed with COVID-19 pneumonia led to thrombosis in the arm, therefore warranting routine evaluation of the arms for this application. While this topic is certainly timely and pertinent given the ongoing pandemic, the manuscript lacks depth in analysis and discussion. These are some major problems with the report in its current form.

Major points:

1) Given that is not a case study, the report is underpowered with only 2 patients and should be evaluated in a larger cohort. It is unclear whether helmet-CPAP is considered the standard non-invasive ventilation for oxygen therapy and the authors should clearly discuss the rationale and caveats in such application. Is this a routine practice?

**Reply 1:** We acknowledge the limitation pointed by the reviewer regarding the numerosity of the study population; yet, the paper was submitted early in the pandemic phase and we considered to deliver the message in this editorial format.

The text explains the rationale for using helmet CPAP in COVID, last but not least the lower risk of air dissemination and shortage of systems to deliver positive pressure non invasive ventilation.

2) The authors seem report up to two-week follow-up. These seems short, what is the clinical outcome or prognosis.

**Reply 2:** We can now report follow up.

**Changes in the text:** Patient 1 had complete recanalization, patient 2 reported reduction of arm swelling and partial thrombus resolution within the following 4 days. At discharge there was still thrombus at the junction between the brachial and axillary vein.

Both patients were discharged alive on full dose enoxaparin.

3) The manuscript lacks specific details about the patient characteristics. Please specify: whether the patients had any etiologies prone to formation of thrombosis? Did they have normal coagulatory profiles before the CPAP? Importantly, the authors are advised to add a bit useful more about the patient characteristics rather than giving a bulky description as in a case report.

**Reply 3:** Thank you for your comment. These were otherwise healthy patients who presented with COVID 19 and who showed the typical picture of increase of D dimer, as reported in the text, despite prophylactic LMWH. No risk factor was identified.

4) What is the source and citation for the statement on lines 35-39. The limited data does not seem to support these claims alone.

**Reply 4:** Taken; we have modified the references accordingly. Thanks.

Changes in the text: Marchandot B, Trimaille A, Cutiaud A et al. Staging Severity of COVID-19 according to Hemostatic Abnormalities (CAHA Score) *Thromb Haemost.* 2020 Aug 30.doi: 10.1055/s-0040-1715836.