The unfriendly side of “happy hypoxaemia”: Sudden cardiac death

A 31 year-old female patient was admitted to our dedicated COVID-19 Intensive Care Unit with hypoxaemic respiratory insufficiency due to COVID-19 pneumoni.

More recent studies yield con...

Conversely, it has been argued that early, potentially and resultant normocarbia or even hypocarbia, it may be reasonable to use a step-up in ventilatory settings (EPAP as low as 6 and up to 14 cmH₂O).

In our...
To aid in deciding whom to intubate, authors have proposed using the ROX index, which, in several retrospective series, has been reported to predict failure of non-invasive respiratory support in COVID-19. While most studies were performed in cohorts treated with HFNC, the ROX index has been reported to correlate with outcomes after CPAP as well. It should be noted that different studies report different cut-offs (such as $< 3.85$ and $< 5.99$). Our patient had ROX-indexes as low as 1.12, clearly indicating a high risk of treatment failure.

The phenomenon of seemingly well-tolerated hypoxaemia in COVID-19 has led to further controversy, as it seems counter-intuitive to intubate a patient who, despite having low oxygen saturations, is feeling well. This discrepancy between subjective and objective findings has led some authors to argue that such patients should not be intubated, as long as they remain asymptomatic, and do not exhibit increased work of breathing. Even though we are inclined to agree with this concept in general, as long as hypoxaemia is mild to moderate, we believe our case demonstrates the dangers when such an approach is taken to the extreme. There is a point where hypoxaemia can lead to rapid cardiovascular decompensation, where “happy” hypoxaemia can show its unfriendly side: sudden cardiac death.

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Conflicts of interest
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References


