



CLINICAL IMAGES

Ulcer due to prolonged use of high-flow nasal oxygen

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Received 28 January 2021; accepted 13 November 2021

Available online 27 November 2021

The prolonged administration of high-flow nasal oxygen (HFNO) can create friction between the nose and the cannula. This causes trauma to the skin and can lead to the formation of ulcers. Continuing the Coronavirus disease-2019 (COVID-19) pandemic, patients may require prolonged usage of HFNO therapy. It is noninvasive, simple to use (needing a fraction of inspired oxygen [FiO₂] and flow setting only), and delivers heated and humidified oxygen. It is also beneficial for patients since people who receive HFNO therapy are awake and can speak, eat, and drink.¹ Generally, it does not have to be interrupted or discontinued as a result of intolerance. But it can also lead to pressure ulcers, if used for a prolonged period (Fig. 1). The first patient received HFNO therapy with FiO₂ of 90–100% and 60 liters per minute flow for 11 days. The second patient received HFNO therapy with FiO₂ of 100% and 70 liters per minute flow for nine days. Sterile dressings were applied to the ulcer, and good hygiene was maintained. In the next couple of days, the ulcer showed healing.

It is advised to observe frequently for the occurrence of these ulcers during HFNO therapy. If ulcers develop, one should avoid infection by applying the sterile dressing, maintaining good hygiene, proper caring for wounds, managing discomfort, and ensuring adequate nutrition.



Figure 1 Arrows show ulcers due to prolonged use of high flow nasal oxygen in COVID-19 patients.

Conflicts of interest

The authors declare no conflicts of interest.

Reference

1. Dres M, Demoule A. What every intensivist should know about using high-flow nasal oxygen for critically ill patients. *Rev Bras Ter Intensiva*. 2017;29:399–403.

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