

Thank you for giving me the opportunity to put my case report on your journal. I have revised the sentences and added the explanation according to your recommendations.

The mail you sent has not arrived to me and the corresponding author. Please check our E-mail addresses.

Manuscript NO: 54191

Title: Helmet-based noninvasive ventilation for acute exacerbation of chronic obstructive pulmonary disease : A case report

Name of journal: World Journal of Clinical Cases

Reviewer's code: 02459390

SPECIFIC COMMENTS TO AUTHORS

The authors present a case where helmet NIV was used successfully as a rescue therapy in a patient in whom oronasal mask NIV had been unsuccessful. There is a suggestion that the helmet interface allowed higher pressures and longer treatment periods to be tolerated which led to survival in a patient who would otherwise be highly likely to die (as not for invasive ventilation). This is probably of some merit and worthy of publication; however I think some revision of the manuscript is required to place greater emphasis on the beneficial characteristics of the helmet over the facemask - as in it allowed the higher pressures to be used and for longer, which probably was the difference between success and failure of NIV. At the moment I do

not feel that point is made clearly enough and the message is perhaps slightly lost or diluted as a result

Answer>

Following the comments of the reviewer 02459390, we added the following paragraph to the conclusion section. <The helmet-based NIV can be applied continuously for a long time, because of less discomfort even under high pressure and no need to stop during Levin tube feeding. Also, helmet-based NIV can deliver higher pressures without air leakage than oronasal mask-based NIV. In our opinion, these benefits and characteristics enable patient recovery from hypercapnic respiratory failure more effectively.>

Reviewer's code: 02981504

SPECIFIC COMMENTS TO AUTHORS

It's an interesting topic! Respiratory support techniques are often the only method of respiratory failure, the patient reported in the article was lucky. For patients who fail noninvasive ventilation and refuse to accept endotracheal intubation, the helmet-based NIV can be considered a salvage therapy. But, During Helmet -based NIV, how to protect the eye of unconscious patient? Is there a difference with NIV in terms of parameter adjustment? (including flow rate and pressure)?

Answer>

In general, eye protection is not required when applying helmet-based NIV.

Cloustrophobia and noise are mainly included in complication when helmet-based NIV is applied. When patients can't bear the loud noises and claustrophobia inside the helmet, we can use ear plugs and sedatives such as a dexmedetomidine can be used. The ocular discomfort is absent in our patient.

Answer>

The reviewer 02981504 wondered the difference between parameter adjustment of helmet and oronassal mask-based NIV.

Therefore, we added the following sentences in treatment section.

<He was already using oronasal mask-based NIV for about 8 hours per day. When we applied higher PEEP and inspiratory positive pressure than ever applied, the air leak increased, and the patient reported it was unbearable. The maximal peak pressure that the patient could withstand were 14 cmH₂O during oronasal mask-based NIV.>

<After changing to helmet-based NIV, no air leak occurred and inspiratory positive pressure and PEEP were maintained at 10 and 12 cmH₂O, respectively, which the patient tolerated. After 5 hours of helmet-based NIV, hypercapnia and level of consciousness were not improved. However, helmet-based NIV was maintained until the next morning, when hypercapnia and level of consciousness were improved. Thus, helmet-based NIV was applied for three consecutive days at 24 hours per day. >