

# Gastric distention: A common complication of noninvasive ventilation

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**Submitted:** 12-Dec-2019      **Accepted:** 12-Jan-2020      **Published:** 02-Mar-2021

A 35-year-old woman was admitted to the intensive care unit with acute exacerbation of obstructive airway disease and received mechanical ventilation for 3 days. After clinical improvement, she was extubated, and noninvasive ventilation (NIV) was started because of high arterial CO<sub>2</sub> levels. She was receiving NIV via an oronasal mask. After 12 h of NIV use, she had an increase in dyspnea and complained of abdominal pain and distention. On clinical examination, she was in marked respiratory distress. She had abdominal distension, and an outline of the distended stomach was seen on the abdomen [Figure 1]. In view of the worsening respiratory failure, she was intubated and started on invasive mechanical ventilation. A nasogastric tube was placed, and a gush of air came from the tube, which led to the resolution of abdominal distension.

NIV is commonly used in intensive care units and emergency rooms for the management of acute respiratory failure.<sup>[1]</sup> It is considered a safe modality when used judiciously for appropriate indications. Common complications of NIV therapy include mask-related complications such as pressure injuries, aspiration, mucous plugging, aerophagia, and gastric distension.<sup>[2]</sup> Aerophagia is common during NIV use and can worsen the respiratory failure due to impaired diaphragmatic movements due to distended stomach. Gastric distension also increases the risk of aspiration pneumonia. The use of nasogastric tubes in these patients helps in stomach decompression, but can sometimes increase the leak from the mask. A regular clinical examination can help identify this early, leading to timely treatment.

### Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal.



**Figure 1:** Clinical photograph of the patient demonstrating outline of the distended stomach due to aerophagia

The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

### Financial support and sponsorship

Nil.

### Conflicts of interest

There are no conflicts of interest.

### REFERENCES

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**How to cite this article:** Mittal S, Madan K, Mohan A, Hadda V. Gastric distention: A common complication of noninvasive ventilation. *Lung India* 2021;38:195.

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<b>Quick Response Code:</b> 	<b>Website:</b> <a href="http://www.lungindia.com">www.lungindia.com</a>
	<b>DOI:</b> 10.4103/lungindia.lungindia_535_19