

Sudden Hypoxemia in GI Procedure Relieved by a New Distal Pharyngeal Airway (DPA): Case Report

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BACKGROUND:

Airway management challenges such as upper airway obstruction and hypoxemia occur frequently in GI endoscopy cases despite the use of supplemental oxygen administration from purpose-built oxygen masks. Recent closed claims analysis indicate that GI endoscopy cases are associated with the highest number of malpractice claims for anesthesia providers, highlighting the need to improve upper airway patency and oxygenation.¹ The Distal Pharyngeal Airway (DPA) can facilitate efficient and effective airway management.

CASE PRESENTATION:

A 60-year-old, 137 kg male with a BMI of 53 and a medical history of obstructive sleep apnea (OSA). Routine monitors and 8L oxygen via endoscopy mask were placed. Propofol deep sedation was initiated and titrated until the patient became unresponsive to verbal or gentle physical stimuli. EGD endoscope insertion was uncomplicated with a jaw thrust assist, and the endoscopist began the examination. Apnea occurred with the start of the procedure, which led to an episode of hypoxemia (SpO₂ dropped from 99% to 60%), which was not amenable to a vigorous jaw thrust maneuver. Without procedure interruption, the distal pharyngeal airway (DPA) was placed alongside the EGD bite block (Fig. 1 & 2). The patient's hypoxemia resolved, and the procedure was completed without any complications.

DISCUSSION:

The DPA is a quick and convenient tool for preventing common upper airway obstruction during an upper GI endoscopy procedure without disrupting the procedure. The new distal pharyngeal airway described here is a welcome addition to the anesthesiology provider's toolbox and shows promise in reducing patient risk and improving outcomes.

REFERENCES

1. Stone AB, Brovman EY, Greenberg P, Urman RD. A medicolegal analysis of malpractice claims involving anesthesiologists in the gastrointestinal endoscopy suite (2007-2016). *J Clin Anesth*. Aug 2018;48:15-20. doi:10.1016/j.jclinane.2018.04.007

FIGURES

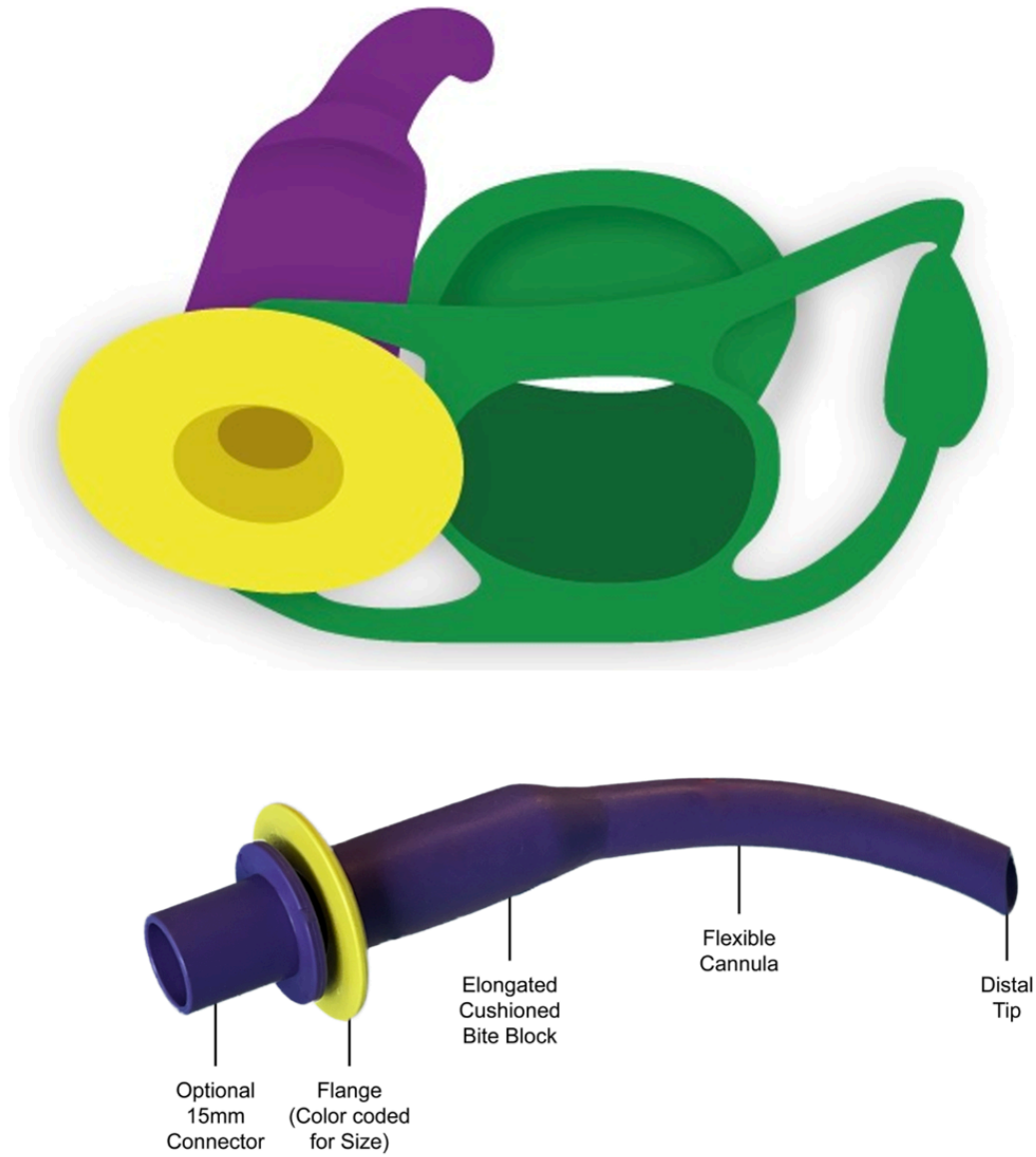


Fig. 1 Below: A commercially available Distal Pharyngeal Airway (DPA) (McMurray Medical, Minneapolis, Minnesota). Above: The Distal Pharyngeal Airway (DPA) A is placed through the lateral hole of a standard GI Endoscopy Bite Block.

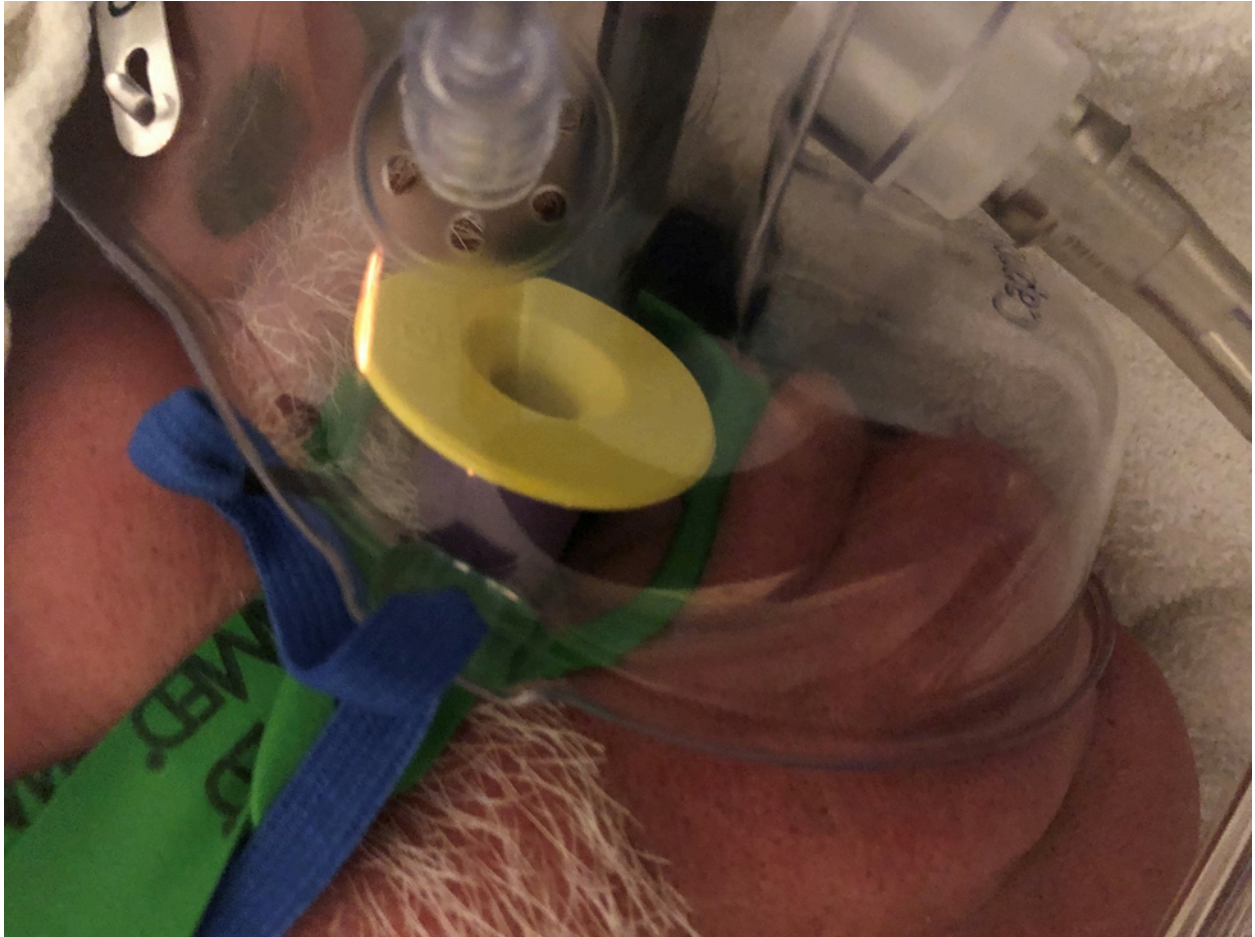


Fig. 2 The DPA is shown in use by a patient. Next to the DPA is a conventional endoscope.

*Images were used with permission from McMurray Medical and the patient.