

LETTERS TO THE EDITOR

Use of a modified ventilation mask to avoid aerosolizing spread of droplets for short endoscopic procedures during coronavirus COVID-19 outbreak

To the Editor:

We read with great interest the work by Repici et al¹ reporting detailed procedures for minimizing the risk of infection to both personnel and patients in endoscopic units during the COVID-19 pandemic. Moreover, training the staff is crucial to prevent exposure during any endoscopic procedure.²

Although endoscopic procedures are rarely required for COVID-19-infected patients, it is prudent to consider all

patients as potentially infected, especially in hospitals highly involved in the outbreak.

In view of this, we suggest the use of a special device to be applied to the patient's face during upper endoscopy, with the aim to minimize aerosolization during the procedure.

It is realized by use of an anesthetic face mask (Flexicare, Flexicare Middle East & Africa, Amman, Jordan) applied over a bite block set with O₂ tubing and nasal CO₂ sampling (Smart CapnoLine Guardian O₂, Microstream, Oridion Medical 1987 Ltd, Jerusalem, Israel), through which the endoscope is inserted. To minimize the emission of droplets, a rubber valve made with a glove finger is put on the endoscope port (Fig. 1).

It is important to guarantee perfect hold of the mask by means of the elastic band system (Fig. 1B) and to monitor



Figure 1. Droplet-containing device used during a procedure performed in a patient with a PEGJ and hence in supine position. **A**, Bite block set with O₂ tubing and nasal CO₂ sampling. **B**, Anesthetic face mask applied over the bite block set and fixed with an elastic band system. **C**, Rubber valve made with a glove finger placed on the endoscope port. **D**, Monitoring of vital signs during the procedure. PEGJ, percutaneous endoscopic transgastric jejunostomy.

expiratory CO₂ continuously (Fig. 1) to avoid possible rebreathing hypercapnia during more prolonged endoscopic procedures.

Clearly, there is a need for scientific data on the reduction of aerosolization during upper endoscopy brought about by our craft device. Our perception, however, is encouraged by literature data showing that any kind of mask, even homemade masks, would be better than no protection in reducing aerosol exposure.^{3,4}

Under the present emergency conditions, we believe that this device provides the only available means for potentially reducing virus transmission.

DISCLOSURE

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