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Comments on “The surgical approach of late-onset tracheoesophageal fistula in a tracheostomized COVID-19 patient”

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Key words: acquired tracheoesophageal fistula; ventilator-dependent patient; tracheal surgery.

Dear Editor,

we have read with interest the case reported by Rotolo *et al.* [1] (published in February 2023 as Early Access) concerning the surgical management of tracheoesophageal fistula (TEF) in a COVID-19 patient treated with prolonged mechanical ventilation for severe respiratory failure. In this case, after transgastric placement of jejunal feeding tube, the authors performed a tracheal resection with excision of the fistula and a direct closure of the esophageal defect. The interposition of a muscle flap between the suture lines was then followed by tracheal end-to-end anastomosis. The patient required postoperative mechanical ventilation due to COVID-19 pulmonary long-term effects but subsequently she no longer needed hospital care and was discharged home. The authors recommend tracheal resection and reconstruction for the surgical management of TEF but at the same time recognize that the risk of postoperative complications after TEF repair in patients requiring prolonged mechanical ventilation is high. In the last decades several authors have actually advised to delay the definitive surgical repair of a benign acquired TEF until the patient no longer needs mechanical ventilation, pointing out that a prolonged positive pressure ventilation may lead to anastomosis dehiscence and prevent tissue healing with consequent increased risk of postoperative morbidity and mortality [2,3]. In a retrospective review of 35 patients with acquired non-malignant TEF treated over a period of 30 years, however, Shen *et al.* concluded that, whenever tracheal resection and reconstruction isn't required, the ventilator dependence, at the time of repair, isn't be considered a contraindication to surgical management [4].

We have recently published two case reports on ventilator-dependent patients with acquired benign TEF who were treated by direct closure of the tracheal and esophageal defects or direct suture of the esophageal defect combined with tracheoplasty. In both cases we performed a complete cervical tracheal transection, followed by fistula treatment and tracheal reconstruction without resection, and no postoperative complications occurred [5,6].

For surgical management of acquired benign TEF in ventilator-dependent patient we should consider alternative techniques to tracheal resection and reconstruction, adopting this procedure, according to several investigators, in case of large fistula associated with tracheal stenosis or circumferential airway defect [3,7].

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