IMAGING IN INTENSIVE CARE MEDICINE

A Sengstaken–Blakemore tube to rescue respiratory failure due to oesophageal-pulmonary fistula

Victor Penaud¹, Damien Roux^{1,2,3}, Benoit Coffin^{2,4} and Charles Verney^{1,2*}

© 2021 Springer-Verlag GmbH Germany, part of Springer Nature

Management of trachea-oesophageal fistula is challenging, especially when positive airway pressure under mechanical ventilation is required.

A 46-year-old man was admitted on a weekend to our intensive care unit for acute respiratory failure and septic shock. He was recently treated with radiotherapy for an oesophageal adenocarcinoma, along with an oesophageal prosthesis for dysphagia. Clinical examination revealed respiratory failure despite nasal high-flow oxygen, and persistent coughing of large amounts of pus. Chest X-ray revealed diffuse alveolar opacities and an apical abscess in the right lung (Fig. 1—top panels).

The patient was intubated and placed under mechanical ventilation. The oxygen blown by the ventilator came out through the gastric tube, leading to the hypothesis of a pulmonary-oesophageal fistula.

A Sengstaken–Blakemore tube was inserted to cover the fistula (Fig. 1), allowing for adequate ventilation and eventually shock resolution.

Chest computed tomography confirmed the fistula (Fig. 1—lower panels) that was correctly covered by the oesophageal balloon of the tube.

The next Monday, the patient successfully underwent an endoscopic procedure for a prosthetic-in-prosthetic replacement under CO₂ insufflation (supplementary material). Despite initial clinical improvement, the severe respiratory condition and the poor oncologic prognosis led to therapeutic limitations. The patient eventually died five days after the admission.

*Correspondence: charlesverney@gmail.com

¹ AP-HP, Hôpital Louis Mourier, Médecine intensive Réanimation, 92700 Colombes, France

Full author information is available at the end of the article

Fig. 1 Chest X-rays before and after the Sengstaken–Blakemore tube placement, and thoracic scan confirming the fistula obstruction

Supplementary Information

The online version contains supplementary material available at <https://doi.org/10.1007/s00134-021-06376-4>.

Author details

¹ AP-HP, Hôpital Louis Mourier, Médecine intensive Réanimation, 92700 Colombes, France. ² Université de Paris, UFR de Médecine, 75010 Paris, France. ³ Université de Paris, IAME, INSERM UMR1137, 75018 Paris, France. ⁴ AP-HP, Hôpital Louis Mourier, Service d'hépatogastro-entérologie, 92700 Colombes, France.

Declarations

Conflicts of interest

The authors declare that they have no conflict of interest. No funding or financial support was received.

Publisher's Note

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Received: 8 February 2021 Accepted: 27 February 2021

Published online: 9 March 2021