





Hospital Universitari MútuaTerrassa BARCELONA



# **TRACHEOBRONCHIAL PROSTHESIS FOR GASTRO-**TRACHEOBRONCHIAL FISTULA WITH RESPIRATORY FAILURE AFTER ESOPHAGECTOMY: A CASE REPORT

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#### Introduction

Esophago-tracheobronchial fistulas (ETBFs) are severe complications that may arise after esophagectomy. Its management is challenging due to the complex anatomical relationships between the oesophagus, trachea, and bronchi. Tracheobronchial stent placement is a treatment option that isolates the airway from the digestive tract, preventing contamination and facilitating fistula healing.

## Material and methods

We report a case of a 75-year-old woman who, following minimal invasive esophagectomy for squamous cell carcinoma, developed a gastro-bronchial fistula leading to respiratory failure. Intubation was performed by rigid bronchoscopy. A fistula was observed on the posterior surface of the left main bronchus with the discharge of bilious material. A bifurcated stent was placed under direct visualization with a flexible bronchoscope through the tracheostoma. Proper placement of the endoprosthesis was confirmed successfully sealing the fistula.

#### Results

A tracheobronchial prosthesis was successfully used to seal the fistula, resulting in favourable clinical outcomes. The indication for endoscopic management of a ETBF with the placement of a self-expanding metal prosthesis typically includes persistent fistula despite conservative management, severe respiratory compromise, ineligibility for immediate surgical repair or bridge to surgery, complex fistula anatomy and prevention of aspiration in recurrent fistulas. This technique aims to close the fistula, restore the integrity of the tracheal and oesophageal walls and improve the patient's quality of life by reducing complications, morbidity and mortality.

## Conclusions

Tracheobronchial stents provide a minimally invasive and effective approach for managing ETBFs, promoting healing and improving patient outcomes.