Airway-enteric fistulas after esophageal resection, although rare, are among the most challenging complications faced by thoracic surgeons. Surgical repair of these fistulas is complex, even for the most experienced surgeon, and the literature on this treatment consists mainly of very small series and case reports. Even with repair, prognosis is poor, with 30% mortality in reported series. Morbidity results from several potential contributing factors: patients’ underlying malnutrition and infection, a previously irradiated field, anastomotic leak, mediastinal lymphadenectomy, and recurrent malignancy. Without intervention, however, prognosis is equally poor, with death resulting from aspiration pneumonia and sepsis. Various combinations of covered tracheal or esophageal stents have been described, with some success. Achieving and maintaining fistula coverage with esophageal stents is often challenging, however; placement may be difficult because of location, and stents may migrate in larger conduits. With “kissing” stents in the airway and esophagus, there is also the theoretic risk of increasing the size of the fistula by necrosis as a result of the radial pressure exerted by apposed devices.

In this issue of The Journal, Li and colleagues present a series of 10 patients with proximal airway fistulas that were treated with 2 or more custom-made Y-shaped stents placed solely in the airway. This represents a novel approach in that the stents overlap in the airway to cover the defects fully, and there is no need for esophageal stent placement. The Y-shape of the stents allows for proper seating and helps to maintain suitable placement of the stents. Interestingly, these airway stents are custom manufactured and hand-knitted for each patient within 3 to 4 days on the basis of computed tomographic and bronchoscopic measurements.

Of note, Li and colleagues are not thoracic surgeons. They are members of the Department of Interventional Radiology at their institution, and they refer to themselves as the “chest intervention team.” Remarkably, placement of the stents is achieved with sedation under general technique rather than general anesthesia. This approach highlights the use of multidisciplinary care teams in treating these complex patients, thus avoiding additional surgery (Figure 1). Of the 10 patients treated, half died of disease recurrence during the follow-up period but none had a recurrence of coughing symptoms as before stent placement, and their median survival of 7.1 months compares favorably with other studies. This not only demonstrates good palliation.
of symptoms but also potentially represents improved quality of life (although not formally measured) for these unfortunate patients.

Placement of these combination Y-shaped airway stents for management of enteric-airway fistulas provides a useful and efficacious alternative to surgery for these complex and often severely ill patients. The challenge facing us now is generalizability: not only making the technology of these custom-fit stents available outside China but also providing the training and skills to thoracic teams worldwide so that others may benefit.

References