Y-nitinol airway stent for management of central airway compression due to metastatic colon cancer.

Abstract:
Tumor masses in the area between the esophagus and the tracheobronchial tree can lead to complications involving both systems, mainly strictures and compressions. Malignant esophageal strictures are nowadays often treated by insertion of a metal stent which, however, can cause airway compression especially in the proximal area. We present here a new method of creating a Y-stent out of two self-expandable tracheal nitinol stents, utilizing fiber bronchoscopy, in a 55-year-old woman with advanced colon cancer metastatic to the mediastinum. The endo-Y-stent technique can be performed with the patient under sedation and having topical anesthesia. The opening through which the second tracheal stent must be placed for the Y construction is created by laser. In this case, the patient suffered from airway compression which was efficiently relieved by this method. Within a short time the endo-Y-stent provides effective restoration and maintenance of airway patency in patients with tumor compression in the region of the esophagus and airway, and in those with airway compression following esophageal stenting. Expertise in both stent implantation and laser application is, however, mandatory.