

Post-Intubation Tracheal Stenosis

J. Michael DiMaio, MD

Director, Cardiovascular and Thoracic Surgery Research
University of Texas Southwestern Medical Center
St. Paul Hospital
Dallas, TX



Figure 1
Stricture pre-stent
placement



Figure 2
Post-stent placement

Patient History

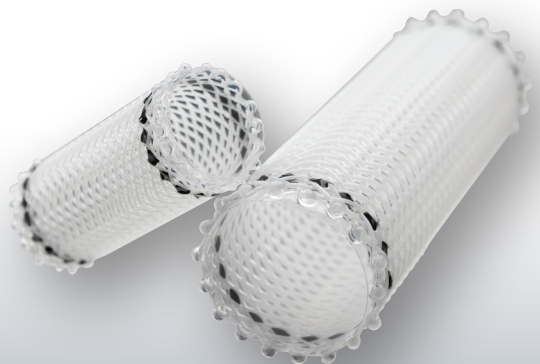
A 65-year-old Caucasian female with history of CHF (EF<10%) who had a very severe motor vehicle accident 15 years ago. She was in the hospital for a number of months with a longterm tracheostomy. She had recurrent problems with her subglottic trachea. Approximately two years ago, she had a stent placed in her airway. She has had recurrent problems since that time with dyspnea and inability to walk. She is currently using a motorized wheelchair. She has had recurrent pneumonias. She has also had voice changes. A CT scan was done demonstrating a metallic stent in the majority of her trachea. There is a small area of narrowing above the trachea but beneath the cords (**Figure 1**). The inferior aspect of the stent is also narrowed by granulation tissue. The superior and inferior aspects of her stent are obscured by granulation.

Procedure

We attempted tracheal dilatation and Polyflex Airway Stent placement in the recent past. Due to her chordal problems, we were unable to place a 22 mm stent. The patient has had high retention CO₂ noted both pre-admission and on admission. The patient was on BiPAP ventilation during this hospitalization. We used an intermittent LMA, bare cords, and rigid bronchoscopy. An 18mm x 8cm Polyflex Airway Stent was placed just above the carina to just beneath the vocal cords (**Figure 2**). The patient had some narrowing of the stent beneath the vocal cords, but that was due to the continued granulation tissue and problems that were present. We re-advanced the scope in the airway. The vocal cords remained erythematous and abnormal. The sub-cord apparatus was narrowed but had a patent enough lumen to tolerate ventilation.

Post Procedure

Post-operatively, the patient developed ventilator-assisted pneumonia and was treated with antibiotics. This was thought to be secondary to the inability to remove the initial stent placed two years ago and poor clearance of her secretions. The patient was discharged on antibiotics approximately three weeks after the Polyflex Airway Stent placement.





Boston Scientific Corporation
300 Boston Scientific Way
Marlborough, MA 01752
www.bostonscientific.com/endo-resources

Ordering Information
1.888.272.1001

©2014 Boston Scientific Corporation
or its affiliates. All rights reserved.

ENDO-255002-AA August 2014

Results from case studies are not predictive of results in other cases. Results in other cases may vary.

Polyflex is a registered or unregistered trademarks of Boston Scientific Corporation or its affiliates.

Indications, Contraindications, Warnings and Instructions for Use can be found in the product labeling supplied with each device.

Caution: Federal (U.S.) law restricts this device to sale by or on the order of a physician.

CAUTION: The law restricts these devices to sale by or on the order of a physician. Information for the use only in countries with applicable health authority product registrations.