

## **AIRWAY STENTS; AN OVERVIEW**

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A variety of silicone, metal, or hybrid prostheses have been used for more than 10 years to palliate central airways obstruction. The favorable effects of these devices on prolonging life, improving ventilatory function and quality of life are well recognized.

In this report a brief history of these devices is presented. Advantages and disadvantages of several specific models of airway stents are noted. Insertion techniques are described, and specific recommendations are offered pertaining to issues such as removal difficulties, subglottic stent migration, treating tumor over growth and managing bilateral bronchial disease with carinal involvement.

Data are presented from research performed at the University of California, San Diego – La Jolla. Appropriate role of surveillance bronchoscopy for patients with indwelling silicone stents will be reviewed and discussed. In addition, data from an in-press publication pertaining to the use of Neodymium YAG laser on tissues surrounding indwelling stents are presented. Finally, data from a recently completed study of the potential adverse effects of argon plasma coagulation on silicone, metal, or covered metal stents will be presented. Findings regarding the use of argon plasma coagulation at 40 or 80 watts, and various levels of oxygen concentration will be shared.

Airway stents have been a remarkable addition to the armamentarium of the interventional bronchoscopist. The availability of stenting increases the therapeutic options for patients being considered for treatment of symptomatic central airway obstruction.

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