

Recent advances in therapeutic bronchology

涂智彦

中國醫學大學附設醫院 胸腔內科

Interventional bronchoscopy refers to the application of advanced bronchoscopic techniques for the diagnosis and treatment of various diseases of the airways and endobronchial lesions. Recently several diagnostic and therapeutic modalities have been developed through flexible fiberoptic bronchoscopes, including endobronchial electrocautery, balloon dilatation, stent implantation, endobronchial ultrasound photodynamic therapy and fluorescence bronchoscopy.

Tracheobronchial obstruction is a distressing cause of morbidity and mortality in patients with benign and malignant disease. Curative resection is not always possible in the majority of cases, and treatment instead is focused on palliation. Several techniques are available for bronchoscopic treatment of obstructive lesions in the tracheobronchial tree, including electrocautery, laser therapy, balloon dilatation, airway stent, and cryosurgery. Balloon dilatation via bronchoscope is a minimally invasive, safe, rapid procedure and the advantages include operator familiarity and avoidance of general anesthesia. Balloon dilatation is effective in dilatation of airway lumen stricture caused by fibrotic processes due to intubation, tracheostomy, granulomatous disease, trauma or smoking injury. It may be used in combination with other techniques such as surgery, laser resection, cryotherapy or electrocautery. The advantage of an airway stent is that it supports the airway wall against collapse or external compression, and can impede extension of tumor into the airway lumen. Bronchoscopic insertion of airway stents is

now possible under general or topical anesthesia. Airway stent can be used alone or in concomitance with other modalities such as laser, electrocautery, or balloon dilatation in eliminating central airway obstruction.

Interventional bronchoscopy of the new millennium will not only expand in its diagnostic and therapeutic applications, but is likely to assume greater importance as other aggressive therapy.