中文題目: 介入性支氣管鏡術

英文題目: Interventional Bronchoscopy

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Flexible fiberoptic bronchoscopy has been used for diagnosis of endobronchial lesions for decades. Recently several diagnostic and therapeutic modalities have been developed through flexible fiberoptic bronchoscopes, including endobronchial electrocautery, balloon dilatation, stent implantation, endobronchial ultrasound and fluorescence bronchoscopy. By virtue of endobronchial ultrasound, submucosal layer and mediastinum are no longer non-visualized fields on bronchoscopy. This is especially the case for tumor staging and for assessment of therapeutic response. Fluorescence bronchoscopy is a new modality to detect superficial pre-cancer lesion and may be important in early screen of lung cancer in high risk patients. Tracheobronchial obstruction due to malignant or begin processes can produce recurrent pneumonia, respiratory insufficiency, and death. 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. Of these options, only laser therapy and electrocautery can produce rapid tissue destruction in a single setting and are appropriate to treat acute respiratory distress and hemoptysis. Laser therapy is limited for their cost and risk of penetration injury. Refinements of electrodes and generators of high frequency current have improved the safety and clinical efficacy of electrocautery in tumor debulking, curative benign tumor resection, hemostasis, and restoration of airway patency to prevent or treat post-obstructive pneumonia with minimal morbidity. Balloon dilatation via bronchoscope is a minimally invasive, safe, rapid procedure and does not require anesthesia. Balloon dilatation is effective in dilatation of airway lumen stricture caused by fibrotic processes due to intubation, tracheostomy, bronchial re-implantation after sleeve surgery, anastomosis of transplanted lungs, granulomatous disease, trauma or smoking injury. Airway stents provide the advantage of airway wall against collapse, or external compression, and impede extension of tumor into airway lumen. Implantation of airway stent through flexible bronchoscopes is now feasible. Airway stent can be used alone or in concomitance with other modalities such as laser, electrocautery, or balloon dilatation in eliminating central airway obstruction. Suitable selection of stent types, caliber is essential for a successful stent implantation.