Matthew Wong
Honorary Clinical Assistant Professor, The University of Hong Kong

Brief biography

After graduating at the University Hong Kong, Dr Matthew Wong has been working in the Department of Medicine, Queen Mary Hospital. Currently he is a specialist in Respiratory Medicine, Associate Consultant of Queen Mary Hospital and Honorary Clinical Assistant Professor, The University of Hong Kong.

Dr Wong received overseas training in the Department of Thoracic Surgery, Chiba University, Japan in year 2005; Department of Chest Surgery, St Marianna Hospital, Kawasaki, Japan in year 2007. Since 2008, Dr Wong also acquired training in France, Australia, United State and Germany. His main research contributions have been in the interventional pulmonology with special interest in endobronchial ultrasound guided transbronchial needle aspiration, peripheral endobronchial ultrasound guided sheath biopsy, transthoracic ultrasound, pleuroscopy, indwelling pleural catheter and endobronchial valve.
Interventional Pulmonology in Hong Kong

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Interventional pulmonology (IP) is a new concept within respiratory medicine in the world. IP involves a wide range of diagnostic and therapeutic modalities in management of patients suffering from lung cancer, airway obstruction and pleural diseases. Conventional bronchoscopy incorporated with endobronchial biopsy, transbronchial lung biopsy and bronchoalveolar lavage have long been used in the diagnosis of pulmonary lesion or intraluminal lesion. However, most lung cancers are not visible during endobronchial examination. The diagnostic yield of transbronchial lung biopsy under fluoroscope is therefore suboptimal. With the recent advances of endobronchial ultrasound guided sheath biopsy for peripheral lung lesion, the diagnostic yield is markedly increased. In the past, lung cancer patients with mediastinal involvement were evaluated by imaging alone prior to surgical exploration such as mediastinoscopy or video assisted thoracoscopic surgery (VATS). However, patients with advanced disease are usually inoperable because of the extensive involvement of the disease or due to the presence of comorbidities. Therefore, surgical exploration under general anaesthesia may not be a viable option in those patients who are not suitable for surgery to start with. Endobronchial ultrasound guided transbronchial needle aspiration (EBUS-TBNA), apart from being used to confirm the pathological mediastinal lymph node staging, also opens a new diagnostic paradigm shift in patients presented with mediastinal involvement. It is especially useful when majority of lung cancer patients have advanced staging upon presentation. The importance of subtyping of cancer cells and molecular profiling as for personalized treatment cannot be overemphasized nowadays. Obtaining adequate tissues by means of EBUS-GS or EBUS-TBNA is therefore not only important in making the diagnosis, but also in formulating appropriate personalized treatment.

About 20% of lung cancer patients presented with malignant pleural effusion upon diagnosis. Therefore, expedient confirmation of malignant involvement of the pleura is mandatory for specific treatment as patients is classified as stage IV with limited life span. Pleuroscopy performed under local anaesthesia not only provide a direct sampling from the pleura with tissue diagnosis, it also alleviate the symptoms of shortness of breath in one go. Autopleurodesis can be achieved in the same sitting if malignancy is confirmed during the pleuroscopic examination. Around 50% of patients presented pleural effusion during the natural course of the malignant disease, symptomatic relieve by drainage of fluid becomes important in improving the quality of life with the very limited life span. Indwelling pleural catheter (IPC) has the advantage of treating the recurrent nature of malignant pleural effusion in one go and 50% of patient s have successful autopleurodesis without additional intervention have their IPC removed in one to two months’ time. IPC is the only effective mean for patients with trapped lung.

Although there is limited clinical evidence for the use of endobronchial valve as a mean for bronchoscopic lung volume reduction and for closure of bronchopleural fistula, with the adjuvant of Chartis system or other physiological measurements, selection of appropriate patients for EBV is promising and its’ use has gained wider acceptance especially when surgical approach is inappropriate in high risk patients.

To conclude, interventional pulmonology has a decade of development history in Hong Kong, the diagnostic and therapeutic impact makes it a rapid growing branch within the pulmonology.