



## EDITORIAL

# Interventional pulmonology

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In 2002, the European Respiratory Society (ERS)/American Thoracic Society statement on interventional pulmonology was published in the *European Respiratory Journal* [1]. Thoracoscopy was not dealt with in this statement, but discussed separately in the ERS Monograph on Pleural Diseases, which was published in September 2002 [2].

Over the past 4 yrs, many articles have been published in the field of interventional pulmonology. An important new development is the use of ultrasound in the diagnostic work-up of enlarged mediastinal lymph nodes in lung cancer patients. Real-time ultrasound-guided fine-needle aspiration of lymph nodes is now possible by the oesophagoscopic (EUS-FNA) as well as the bronchoscopic route.

It is now time for an update on the state-of-the-art procedures in both interventional bronchoscopy and thoracoscopy. In the present issue of the *ERJ*, the article by BOLLIGER *et al.* [3] is the first in a series of six review articles.

Three of these articles will be dedicated to examining the following areas in interventional bronchoscopy: therapeutic procedures with immediate effect; therapeutic procedures with delayed effect; and the site of bronchoscopic and oesophagoscopic needle aspiration of mediastinal lymph nodes using transbronchial needle aspiration (TBNA), endobronchial ultrasound, and EUS-FNA.

The remaining three articles will deal with thoracoscopy and pleural disease to provide: a general overview of the site of thoracoscopy in the diagnosis and management of pleural effusions; an update on the treatment of pneumothorax and the place of pleurodesis; and information on advanced thoracoscopic procedures, such as treatment of empyema, lung biopsy and sympathectomy.

The purpose of this review series is to provide an update on the subject of interventional pulmonology. As not all pulmonologists are skilled in interventional techniques, it is important to recognise the indication for a timely intervention, and to have knowledge about interventions that can alleviate or cure a disease at a certain stage. We would also like to provoke some questions, such as the following: Is interventional pulmonology underdeveloped or underutilised in my hospital or my area? If so, how can we improve services to our patients, and where shall we start? Should every pulmonologist have interventional skills to a certain extent? [4]

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The answer to this last question is yes, depending on the field of pulmonology you are working in. A pulmonologist who currently deals with lung cancer should be able to perform bronchoscopic aspiration of enlarged lymph nodes, which may provide a diagnosis of lymph node metastasis in the majority of cases, and, thus, prevent unnecessary mediastinoscopies in a number of patients [5]. However, it is not necessary that every pulmonologist dealing with oncology should learn oesophagoscopy in order to be able to perform EUS-FNA, as TBNA is diagnostic in >70% of cases and this latter procedure is still underutilised [6].

However, major interventional procedures, such as endobronchial desobstruction and stent placement, should be concentrated in specialised centres. It is not possible to have the facilities and trained staff in every hospital. Besides, the number of indications for these interventions is limited, and skills and experience are best concentrated in a tertiary referral centre.

In the field of pleural diseases, we think that pulmonologists who treat pleural effusions should be able to perform diagnostic thoracoscopy. In the era of invasive procedures under visual guidance, a blind pleural biopsy is no longer an acceptable option after a nondiagnostic thoracocentesis. Pulmonologists in Europe are well aware of these developments, and hands-on courses are provided in Europe and supported by the ERS School (for more information, visit [www.ersnet.org/ers/default.aspx?id=1900](http://www.ersnet.org/ers/default.aspx?id=1900)). In addition, there is growing interest in thoracoscopy in the UK, after a long period of underutilisation. According to a recent questionnaire, the number of centres performing thoracoscopy grew from 11 in 1999 to 17 in 2004, and 54 centres intend to start providing a service [7]. For the past 3 yrs, a successful hands-on thoracoscopy course has been provided yearly in Mansfield (Nottinghamshire, UK).

Should every interventional procedure be available in a centre of interventional pulmonology?

The answer is no. Some centres will specialise in bronchoscopic procedures, others in pleural procedures, and some centres will carry out both.

In a centre for bronchoscopic intervention, one technique for rapid bronchial desobstruction should be available (electrocautery or laser), as well as a technique for delayed desobstruction (brachytherapy, cryotherapy or photodynamic therapy) and stent placement facilities. As a consequence, the pulmonologists in these centres are skilled in rigid bronchoscopy. Although some stents can be placed using flexible bronchoscopy, the rigid bronchoscope is indispensable for handling complications and stent removal if indicated.

In a pleural disease centre, all facilities for diagnostic thoracoscopy in case of pleural effusion will be available. Advanced pleural procedures, such as thoracoscopy for empyema, hyperhidrosis, pulmonary biopsy and pneumothorax, are performed in these centres by skilled pulmonologists, or by a thoracic surgeon trained in minimal invasive procedures.

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