Diagnosis of a suspicious lung mass before operating: Is it worth waiting for ?

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Primum non nocere.
First do no harm.

Surgery is inherently traumatic to the patient and has the potential to cause harm. As students and trainees, we have all been taught that there must be a strong indication for operating before submitting the patient to major surgery.

When operating on a solitary pulmonary mass suspicious of lung cancer, the traditional surgical approach would have been via an open thoracotomy. This of course is now recognized as a particularly painful approach which has the capacity to cause considerable morbidity. Therefore, established wisdom dictates that every effort should be made to confirm a diagnosis of malignancy before taking the patient to the operating room.

However, the world is changing. Today, the incidence of patients being found to have a suspicious lung mass is rapidly increasing. This has been brought about by a combination of many factors, including: increasing public awareness of health issues; unprecedented access to screening services; and modern advances in radiological imaging (including increasing use of Positron Emission Tomography). The potential benefit in terms of detecting earlier staged disease is, however, counter-balanced by an increased burden on diagnostic services to investigate these lesions – such as bronchoscopy or imaging-guided percutaneous biopsy. There is emerging evidence suggesting that presentation-to-diagnosis and presentation-to-treatment intervals may already be increasing in recent years. Moreover, even if pre-operative diagnostic investigations are performed, they may not yield a positive diagnosis in a significant proportion of patients. For these patients, the wait for the diagnostic test would have been in vain, and surgical biopsy will still be required.

On the other hand, Video Assisted Thoracic Surgery (VATS) has already been established as a safe, low-morbidity approach for the diagnosis of many thoracic conditions, including solitary lung nodules. If the trauma of thoracotomy is negated by VATS, can the thresholds for bringing the patient to the operating room be safely lowered? The modern surgeon has the option of performing a VATS biopsy of the suspicious lung mass, sending the tissue for frozen section analysis, and then proceeding to surgery if lung cancer is confirmed. By foregoing pre-operative diagnostic services altogether in this way, will this help minimize presentation-to-treatment intervals and benefit the patient?

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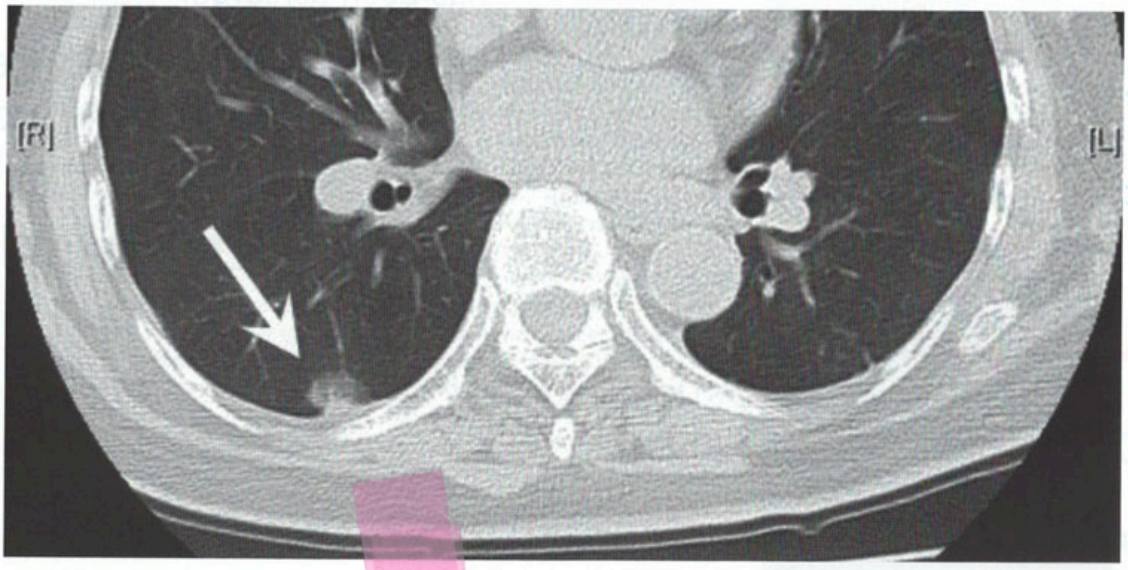
The counter-argument is that proceeding straight to surgery as a routine strategy may involve operating on a large number of patients with benign disease that would not have required surgery at all. Regardless of how minimally invasive that surgery is, is it safe or ethical to be subjecting patients to a policy of wanton surgery? In this era of increasing incidence of suspicious lung lesions being found, the thoracic surgeon must confront this important clinical conundrum: is it still worth waiting for a diagnosis before offering surgery?

In the Thoracic Oncology I session (8:15 AM-9:45 AM on Monday, October 29), Dr Alan Sihoe will be presenting a study from Hong Kong looking at the pros and cons of operating for a suspicious lung mass without a pre-operatively confirmed tissue diagnosis. Delegates will be welcome to share experiences and opinions on this issue of rapidly growing clinical relevance.



An increasingly common scenario: incidental finding of a small pulmonary nodule or ground-glass opacity suspicious of malignancy