

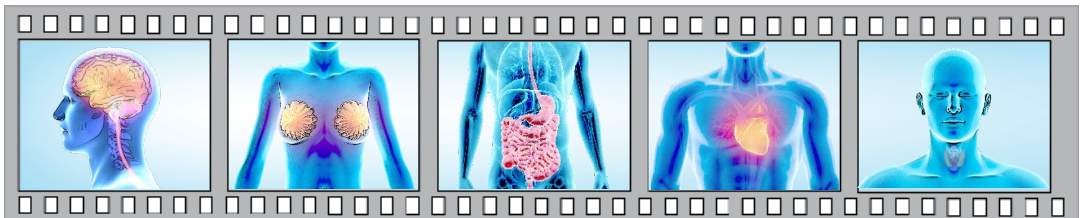
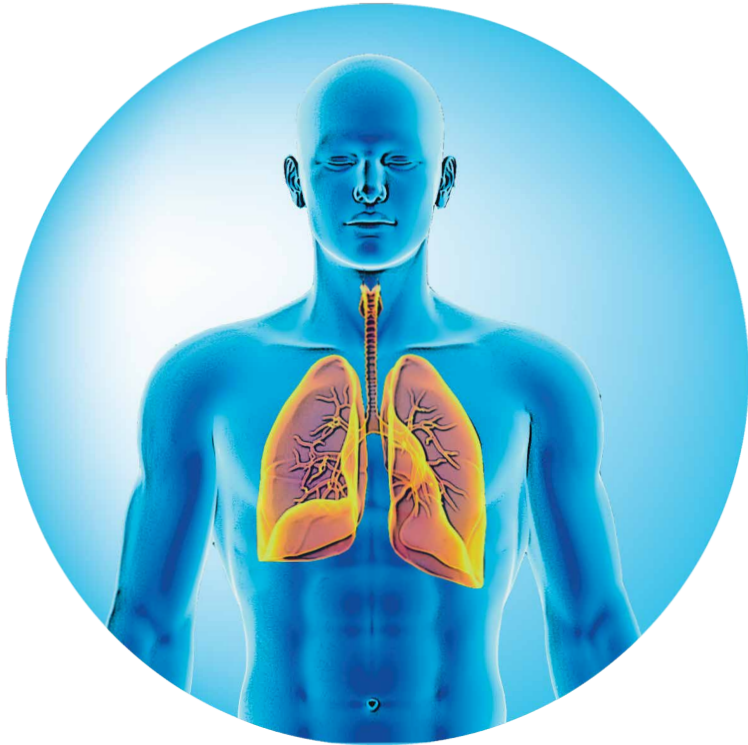


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Minimally Invasive Thoracic Surgery



Thoracotomy is one of the most painful incisions of any surgical procedure, and its associated complications, such as pneumonia, are well known. Video-Assisted Thoracoscopic Surgery (VATS) offers the benefits of a minimally invasive approach with reduced pain and complications^{1,2}.

Sweaty Palms

Sweaty palms can be quite distressing, but can be effectively treated by sympathectomy. Unfortunately, the traditional open approach, either supraclavicular or transaxillary, is associated with significant risks such as phrenic nerve injury and lung injury, in addition to complications associated with a large wound. Not surprisingly, physicians were reluctant to refer patients for sympathectomy. With VATS, the procedure can be performed via 2 to 3 mm incisions and the patient often discharged on the same day. The result is extremely good with nearly 100% success rate and minimal risks^{3,4,5}.

Spontaneous Pneumothorax

Another thoracic condition that benefits from VATS is spontaneous pneumothorax. A very clear thoracoscopic view enables identification of bullae, which are often the cause of the air leak. The bullae can be easily excised with an endostapler or ligated with sutures. A thorough mechanical pleural abrasion ensures sound pleurodesis. The patient can be discharged three to five days after operation. Recurrence rate is around 5%^{6,7}. For those elderly patients with secondary spontaneous pneumothorax, VAT pleurodesis can be performed under local anaesthesia with talcum powder. The result is equally good.⁸ VAT talc pleurodesis is also indicated for those patients suffering from malignant pleural effusion and for recurrent pleural effusion from other causes such as peritoneal dialysis⁹.

Lung Cancer

For lung cancers, VAT lobectomy eliminates the complications associated with a thoracotomy. Post operative pain is minimal and the patient can be discharged 5 to 7 days after the operation. Studies have shown that for early stage cancers VATS offers similar oncological clearance as traditional open lobectomy with comparable survival rates¹.

VATS Biopsy

With increased health awareness and more exhaustive pre-operative investigations such as CT, MRI and PET scans, more abnormalities are being picked up in asymptomatic patients. In most cases, the physician is obliged to do further investigations to find out the nature of these lesions. CT guided fine needle aspiration (FNA) cytology offers the best answer if the lesion is big enough for aspiration and located in a position amenable to percutaneous biopsy. However, FNA might not be successful or conclusive. VATS offers a clear examination of the pleural cavity and the lung lobes, and excision of the nodule provides a specimen for a definitive histological diagnosis ¹⁰.

Miscellany

Other thoracic procedures that are amenable to VATS include thymectomy for myasthenia gravis and thymoma, excision or biopsy of mediastinal tumours, decortication for early empyema thoracis and diagnosis for pleural effusion of unknown causes.

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