



To News Editor  
For Immediate Release

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### **CUHK Pioneers the Use of Endoscopic Ultrasonography in Diagnosing Lung Cancers**

Lung cancer is the most common malignancy in Hong Kong, with more than 4,000 new cases every year<sup>1</sup>. Treatment options include surgery, radiotherapy and chemotherapy. The choice of treatment relies heavily on accurate staging through tissue sampling of suspicious sites which are often deeply seated. Traditionally, clinicians use computer tomography (CT) scan, bronchoscopy, or even operation under general anaesthesia to evaluate the extent of cancer invasion. These conventional techniques, however, are often traumatic.

Endoscopic ultrasound (EUS) is a flexible endoscope coupled with a small ultrasound device at its tip. Gastroenterologist inserts this endoscope through the patient's mouth into the oesophagus and stomach. The tip of EUS generates ultrasound wave, which penetrates the wall of the gut and produces visual images of the surrounding internal organs. Because of the close proximity, the image quality is much better than CT scan. Moreover, EUS can safely sample abnormal lymph nodes and lung tissues through the esophagus without the need of general anaesthesia or open surgery.

To assess the diagnostic yield and complication rate of EUS for various suspicious lesions in the chest, 125 patients with abnormal shadows on chest X-ray were recruited from 1998 to 2007 by the Faculty of Medicine at The Chinese University of Hong Kong (CUHK). The diagnosis in about half of these patients remained obscure despite conventional investigations. Using EUS, the causes of abnormal chest X-ray shadows in 83.2% of the cases were established. Complication rate was very low (<1%) and there was no procedure-related fatality.

“This study suggests that, EUS is an important diagnostic and staging tool for lung cancer patients. It is safe, accurate, and highly tolerable,” said Dr. Larry Lai, the in-charge endoscopist in EUS service and Honorary Clinical Tutor of the Department of Medicine and Therapeutics, Faculty of Medicine, CUHK.

Prince of Wales Hospital, the teaching hospital of CUHK, was the first centre that introduced this novel investigation in Hong Kong, and it is now one of the leading EUS centres in Asia. To date, more than 5,000 patients have undergone EUS at the Prince of Wales Hospital. Apart from lung cancers, EUS has been applied in diagnosing cancers in digestive system, as well as other liver and bile duct problems.

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<sup>1</sup> Source: Hong Kong Cancer Registry, Hospital Authority  
([http://www3.ha.org.hk/cancereg/e\\_stat.asp](http://www3.ha.org.hk/cancereg/e_stat.asp))



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### 中大率先採用超聲波內視鏡準確診斷肺癌

香港最常見的癌症當中，肺癌排名首位，每年有超過 4,000 宗新病例<sup>1</sup>。一般治療肺癌的方法主要有外科手術、放射治療及化學藥物治療等。在確診和評定肺癌分期時，醫生須要抽取病人體內極深層的組織進行化驗，以便根據不同等級的病情選取最適當的治療方案。傳統以來，醫生會透過電腦掃瞄、支氣管鏡檢查，甚至全身麻醉手術來評估肺癌細胞擴散的程度。不過，這些方法通常都會對人體造成不同程度的創傷。

超聲波內視鏡（以下簡稱為「超聲內鏡」）結合了內視鏡及超聲波技術，大大提高了診斷和評估肺癌分期的準確性。檢查時，腸胃科醫生將超聲內鏡通過病人口腔經食道進入胃部。內鏡遠端探頭所發出的超聲波能穿透腸胃內壁，清晰地掃瞄附近的器官。由於超聲波探頭非常貼近人體的內臟，因此所錄得的影像遠比電腦掃瞄更為清晰。此外，以往只能依靠高創傷性手術才能取得的體內淋巴和肺部組織，現在均可透過超聲內鏡幼針穿刺技術經由食道抽取，大幅減低了病人所受的痛楚和風險。

在 1998 至 2007 年期間，香港中文大學（中大）醫學院跟進了 125 名肺部出現陰影的病人，當中近半數經過詳細傳統檢查後仍然未能確診。進行了超聲內鏡幼針穿刺檢查後，所得出的結果準確地診斷出 83.2% 病人的病變原因。檢查的併發症率亦相當低（少於 1%），過程中並沒有任何病人因超聲內鏡檢查而死亡。

中大醫學院內科及藥物治療學系名譽臨床導師及超聲內鏡組負責人黎獻醫生表示：「本研究指出，超聲內鏡能夠準確診斷肺癌及評定其癌症分期。它是一項十分安全，準確度高，而又可令病人免受不必要痛苦的嶄新檢查技術。」

中大教學醫院—威爾斯親王醫院是本港最先引入這種技術的醫院，現已是亞洲區內領先的超聲內鏡中心。除了肺癌以外，超聲內鏡亦應用於診斷各種消化系統的癌症，以及處理肝臟及膽管的疾病，迄今威爾斯親王醫院已累積超過 5,000 宗超聲內鏡檢查的經驗。

2009 年 2 月 5 日

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<sup>1</sup>資料來源：香港癌症資料統計中心 ([http://www3.ha.org.hk/cancereg/e\\_stat.asp](http://www3.ha.org.hk/cancereg/e_stat.asp))