

## **NON-INTUBATED UNIPORTAL ANATOMICAL LUNG RESECTION: A PROPENSITY SCORE MATCHED ANALYSIS SHOWS THAT FASTER RECOVERY IS POSSIBLE EVEN IN THE EARLY EXPERIENCE**

Q. Kun<sup>1</sup>, B. Peng<sup>2</sup>, D. Huang<sup>2</sup>, P. Huang<sup>1</sup>, H. Li<sup>2</sup>, R. He<sup>1</sup>, Alan Sihoe<sup>3</sup>

*1Department of Thoracic Surgery, Shenzhen Third People's Hospital, Shenzhen, China,*

*2Department of Anesthesiology, Shenzhen People's Hospital, Shenzhen, China, 3Department of Surgery, The University of Hong Kong, Shenzhen, China*

### **Objectives:**

Non-intubated uniportal video-assisted thoracoscopic surgery (VATS) has gained considerable interest for major lung resections in recent years. However, characteristics of the learning curve and whether benefits can be shown in the early experience of adapting this technique have hitherto not been investigated.

### **Methods:**

Data were reviewed for the first eight consecutive adult patients receiving uniportal VATS anatomical lobectomy/segmentectomy for lung tumors in our institutes. All operations were performed using a non-intubated technique with target-controlled sedation, no tracheal intubation, and intercostal nerve block (no epidural catheter was placed). Outcomes were compared with a control group of 8 propensity-matched patients who received similar uniportal VATS lobectomy/segmentectomy during the same period – but who received conventional intubated general anesthesia.

### **Results:**

Key characteristics for the two study arms are shown in the Table. The two groups did not differ in all preoperative demographic and clinical characteristics. The non-intubated group included six lobectomies and two segmentectomies. There was no mortality or conversion to a thoracotomy in all patients. The two groups had comparable mean operation time, blood loss, postoperative chest tube drainage, postoperative length of stay, and complication rates. Patients who underwent non-intubated surgery had a lower incidence of sore throat, earlier resumption of eating, and earlier independent mobilization after surgery.