

Left upper lobectomy with bronchoplasty in uniportal video-assisted thoracic surgery for bronchial carcinoid

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Abstract: A 36-year-old male smoker presented with a bronchial carcinoid in the left upper lobe (LUL) associated with bronchial occlusion of the LUL bronchus. A left upper lobectomy with bronchoplasty was performed through a 3.5 cm single-incision in video-assisted thoracic surgery (VATS). The procedure was successful and the recovery uneventful. Pathological examination revealed a carcinoid tumor with no lymph node involvement (T1bN0M0). The follow-up bronchoscopy and computed tomography (CT) scan confirmed no stenosis and no signs of recurrence.

Keywords: Bronchoplasty; uniportal video-assisted thoracic surgery; bronchial carcinoid

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Introduction

Uniportal video-assisted thoracic surgery (VATS) has become an increasingly popular approach to manage thoracic surgical diseases, because of the reduced access trauma and better cosmesis. A major milestone for this approach came in June 2010 in the form of the world's first uniportal VATS lobectomy, which was subsequently reported in 2011 by Gonzalez Rivas (1). Since then, complex uniportal VATS lung resection involving pneumonectomy, segmentectomy and chest wall resection have been successfully accomplished (2,3).

However, reports of lobectomy with bronchoplasty in uniportal VATS are extremely rare (4,5). In this report, I describe a left upper lobectomy with bronchoplasty in uniportal VATS for bronchial carcinoid.

Clinical summary

A 36-year-old male smoker presented with a bronchial carcinoid. Chest computed tomography (CT) shows a carcinoid tumour in the left upper lobe (LUL) associated with bronchial occlusion of the LUL bronchus (*Figure 1*). Bronchoscope examination shows a neoplasm in the

orifice of LUL bronchus (*Figure 2*). The biopsy result demonstrates bronchial carcinoid.

A left upper lobectomy with bronchoplasty was performed through a 3.5 cm single-incision in vats (*Figure 3*). The total operating time was 292 min. The procedure was successful and the recovery uneventful. The patient's chest tube was removed on the 5th day, and he was discharged home on the ninth day. Pathological examination revealed a carcinoid tumor with no lymph node involvement (T1bN0M0). The follow-up bronchoscopy and CT scan confirmed no stenosis and no signs of recurrence.

Operative techniques

This study has obtained informed consent from the patient. The patient was placed in the lateral decubitus position. The surgeon stood at the patient's right side, and a 3.5 cm incision was made at the fifth intercostal space on the anterior axillary line with no rib spreading. We used a 10-mm high-definition 30-degree thoracoscope to adequately visualize the working field through the small single incision. The camera was placed in the posterior portion of the incision with instruments inserted parallel to and below the camera. All procedures were performed while viewing

The success in performing uniportal complex VATS lobectomies is a result of skills and experience accumulated over time from performing uniportal VATS surgery. We believe that by avoiding the use of the trocar, the possibility of an inter-costal nerve injury could be minimized in comparison with conventional VATS.

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Footnote

Conflicts of Interest: The authors have no conflicts of interest to declare.

Informed Consent: Written informed consent was obtained from the patient for publication of this case report. A copy of the written consent is available for review by the Editor-in-Chief of this journal.

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