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Uniportal video-assisted thoracoscopic lobectomy with en bloc chest wall resection

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Background: Lobectomy with chest wall resection was traditionally performed by thoracotomy or by conventional video-assisted thoracoscopic surgery (VATS) during the last decade. However, this procedure can be performed by using only a single incision thoracoscopic approach.

Methods: The publications of uniportal VATS lobectomy requiring chest wall resection describes the use of one incision for the lobectomy (uniportal approach) and a posterior or lateral incision for the chest wall resection. This additional incision ensures a better control from outside and inside to achieve a costal resection with good oncologic margins.

Results: This video shows a total uniportal VATS lobectomy with en bloc chest wall resection through a single 5-cm incision with no rib spreading. The total surgical time was 150 minutes. The postoperative course of the patient was uneventful.

Conclusions: Uniportal VATS lobectomy with en-bloc chest wall resection is a feasible and safe technique. The full procedure can be performed by using only a single incision in selected cases.

Keywords: Chest wall resection; uniportal lobectomy; rib resection; video-assisted thoracoscopic surgery (VATS)

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Lobectomy requiring chest wall resection is usually performed by thoracotomy but thanks to the advances in the field of thoracoscopic surgery this procedure can be performed by video-assisted thoracoscopic surgery (VATS). Recent improvements in surgical devices and the experience gained in VATS enable this complex surgery for advanced stages to be undertaken safely. Most of the thoracoscopic lobectomies with rib resection are performed by using 3-4 incisions. However, the lobectomy and the chest wall resection can be performed by using only one incision. When a lung cancer with chest wall involvement is approached, we can perform the lobectomy first and tackle the chest wall once the lobe is freed. Alternatively, the rib resection can be done first and then finish the procedure with the lobectomy. This video shows a uniportal VATS lobectomy with en bloc chest wall resection through a 5-cm incision with no rib spreading (*Figure 1*). This

Figure 1 Uniportal video-assisted thoracoscopic lobectomy with en bloc chest wall resection (1). This video shows an uniportal VATS lobectomy with en bloc chest wall resection through a single 5-cm incision with no rib spreading. VATS, video-assisted thoracoscopic surgery. Available online: http://www.asvide.com/articles/602

surgery was done by first performing the lobectomy and once the lobe was free, the chest wall resection was completed with the help of a conventional and an adapted long thoracoscopic rib cutter instrument. The postoperative course of the patient was uneventful.

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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. A copy of the written consent is available for review by the Editor-in-Chief of this journal.

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