Minimally invasive surgery for cancer patients has proven to offer many benefits over traditional surgery, including less pain, faster recovery and better cosmesis, without compromising oncologic results (1,2).

Video-assisted thoracoscopic surgery (VATS) is the representation of this concept in thoracic surgery and it has evolved from the conventional three-port technique to the uniportal approach (2).

Uniportal VATS follows the same principles of coordination as in open surgery, since the camera is usually placed at the posterior part of the incision and the instruments performing the procedure are always bellow, mimicking the eye-hand position and coordination of open surgery (3).

This technique has improved substantially since the first reports of major lung resections were reported in 2011 (4,5) to advances cases (6) and more complex resections such as sleeve and double sleeve lobectomies in recent days (7,8). With the development of high definition cameras,
energy devices, articulating instruments and the growing experience of surgeons performing this technique almost any major lung resection and reconstruction procedure can be done with this technique.

Sleeve lobectomies are among the most complex cases in thoracic surgery, even in open surgery these cases are usually challenging for thoracic surgeons (9,10).

Thanks to the rapid progress of uniportal VATS, complex procedures such as bronchial and vascular reconstruction can be performed safely in the hands of expert surgeons.

Although there are several reports of thoracoscopic sleeve lobectomies, only a few of them are performed by using only one incision (11).

This video shows a complex case of a sleeve right upper lobectomy performed by uniportal VATS (Figure 1). This surgery was specially difficult because the right pulmonary artery (PA) was almost over the location in which the bronchial anastomosis was performed, making the procedure particularly challenging. The PA was initially retracted and taped, allowing a better visualization of the divided bronchus. The anastomosis was performed using a 3/0 polydioxanone suture (PDS), with continuous suture in the membranous portion and also for the cartilaginous part.

The direct view that uniportal VATS provides makes feasible and safe to perform complex maneuvers such as bronchial suturing even when there are anatomic conditions that blocks the working field, such as the PA in this case.

Only VATS surgeons with experience in thoracoscopic suturing should attempt this kind of cases in order to perform a safe anastomosis and minimize the risk of complications during surgery and in the postoperative setting.

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Footnote
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References


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