

1. Prof. Mrinoshin Okumura: Thoracoscopic view is limited in uniportal VATS. I suppose that flexible thoracoscope is more useful in uniportal procedure. What is your opinion?

Authors' answer:

In uniportal VATS surgeons, there was no surgeon to recommend strongly to use the flexible scope in present. According to my experience, an operator stands the right side to the patient and face to face position to the assistant. I operate in the bird's eye view to lift the scope perpendicularly to the chest wall. If the surgeon and assistant stand the same side to the patient, it may be useful to secure the surgical view by using the flexible scope.

2. Prof. Mrinoshin Okumura: Is there any limitation in nodal dissection in uniportal VATS?

Authors' answer:

We have difficulty in completing en-bloc lymph node dissection at the same degree with Japanese style that had been carried out at a part of Japanese hospital such as some cancer centers.

However, it is possible to remove the lymph nodes without fail. Two-hand control with operative instruments is still immature for uniportal VATS surgeons. Additional ingenuity and efforts are needed in dissecting lymph node dissection. New devise and additional ingenuity is under consideration.

3. Prof. Mrinoshin Okumura: What are the reasons for conversion to thoracotomy? Do you convert uniportal VATS directly to thoracotomy, not via multiportal VATS?

Authors' answer:

As for conversion to thoracotomy or multiport VATS conversion, I have already reviewed in U-VATS lobectomy. I added the related two articles in my manuscript as follows:

“Hirai K, Enomoto Y, Usuda J. Converting uniportal video-assisted thoracic surgery: multiport or open? *J Vis Surg* 2019;5:22.”;

“Chung JH, Choi YS, Cho JH, *et al.* Uniportal video-assisted thoracoscopic lobectomy: an alternative to conventional thoracoscopic lobectomy in lung cancer surgery? *Interact Cardiovasc Thorac Surg* 2015;20:813-9.”.

In concrete, the causes of our conversion are mainly as follows:

- (I) Related matter of vessel treatment:
 - Fixed lymph node to the it beginning of A6;
 - Tumor invasion to PA;
 - Fall ligated thread from vessel.
- (II) Related matter of lung adhesion:
 - Firm lung adhesion to diaphragm.