

Peer Review File

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Reviewer A

The surgical video was excellent, and demonstrated the vascular branches clearly, which is quite educational for readers. One question about the video:

We should take care not to injure A1+2 behind B3 when we insert the stapler for division of B3 during uniportal thoracoscopic approach. In our department, we usually use curved-tip stapler or “suction device trick” Gonzalez and colleagues suggested in this situation of uVATS lt. S3 segmentectomy. If you have any tips, please describe it.

Reply 1: In generally, disconnection of B3 in left S3 segmentectomy is challenging because of the avoidance of A1+2 injury. In our medical center, the branch of B3 is spaced out by silk thread in the procedure. Of course, in few cases, the A1+2 is not completely hidden behind B3 due to variation. In this condition, we can insert the stapler directly and cut off the targeted bronchi.

Changes in the text: we have modified our text as advised (see page 4, line 75-78)

Reviewer B

The author performed S3 resection. Among all kinds of segments in the upper lobe surgery, S3 surgery is a more difficult lung resection. This surgery is performed under single-port thoracoscopy, which increases the technical difficulty. The preoperative planning is reasonable, the operation process is clean, and the treatment of the three major tubular structures of the hilar is accurate. The following content requires the author's attention:

Comment 1: The treatment of segmental lymph nodes needs to be more careful. As we can see from the video, there are segmental lymph nodes rupture during the free process. Of course, this lymph node is less likely to be metastasis.

Reply 1: Actually, segmental lymph node is so fragile that rupture happens all the time during the free process. We will pay more attention to lymph nodes dissection in segmentectomy.

Changes in the text: we have modified our text as advised (see page 3, line 69-70)

Comment 2: The author mentioned in the article that the expansion and collapse

method was used to deal with the inter-segment plane, however the lung segment boundaries are not clearly displayed, which can be discussed in the limitation.

Reply 2: Expansion and collapse method is a conventional method, which was used to deal with the inter-segment plane. However, this method is limited in COPD patients because of the poor diffusion function. In addition, this method may increase the difficulty of locating the lesion after resection, if there are a few solid components in the lesion.

Changes in the text: we have modified our text as advised (see page 4, line 81-83)

Comment 3: The indications for segmental resection of this case should be stated in the article. In the preoperative planning, attention should be paid to the distance of lung resection margin.

Reply 3: The indications of this case:

1. The lesion was presented as an mGGO with a size of 12mm and a maximum CT value of -450HU.
2. The consolidation to tumor ratio (C/T) was 0.25 to 0.5, which suggested that the lesion is a noninvasive adenocarcinoma according to the clinical research of JCOG1211.
3. The lesion was located in anterior segment of left upper lobe by the three-dimensional reconstruction technique, and the lesion had a safe distance to the resection margin in the preoperative planning.

Changes in the text: we have modified our text as advised (see page 1, line 32-33)