

Peer Review File

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Reviewer A

Comment 1: I understood that the “limited-anatomic resection” was used about the same meaning as “wedge or partial resection.” Is my understanding correct?

Reply 1: Not exactly. We created the term “limited-anatomic resection” to refer to a type of non-standard segmentectomy where not all segmental structures are dissected and divided (veins in particular). The definition was described in Line 36-40, Page 2-3. The rationale is similar to that of wedge resection, only with an extended margin. However, we used the term to intentionally differentiate it from wedge resection which is also known as “non-anatomic resection”.

Changes in the text: For better clarity, we added a major difference between “limited-anatomic resection” and segmentectomy in Line 40-41, Page 3.

Comment 2: In the previous study that you cited in the manuscript (Suzuki K et al. JTCVS 2022), the lung cancer patients with <2.0 cm and <0.25 consolidation tumor ratio showed excellent postoperative outcomes after sublobar resection. In the study, 258 of 314 patients (82%) underwent wedge resection and thus, wedge resection might be an alternative treatment to lobectomy for those NSCLC. However, segmentectomy could be selected when the surgeon noticed that the preceding wedge might result in insufficient margin and in fact, about 20% of the patients underwent segmentectomy. These results indicated that even in the small tumors of <2 cm, it is hard to secure the sufficient surgical margin by the wedge resection when compared to anatomical segmentectomy. I think the limitation of the “limited-anatomic resection” is that surgeons intraoperatively need to identify the tumor location however it is often hard to palpitate the tumor and assess the tumor extent in small ground-glass predominant lung cancers. Thus, the authors need to mention and discuss about this possible limitation for limited-anatomic resection that I suggested. Moreover, you had better mention the recently developed novel technologies for preoperative lung marking, such as VAL-MAP, indocyanine green marking, and microcoil marking because this may be one of possible solutions for intraoperatively identifying small ground-glass predominant lung cancers.

Reply 2: Although this is a universal problem encountered by most types of sublobar resection, we agree that effective surgical planning is worth mentioning since “limited-anatomic resection” deals with more centrally located nodules than wedge resection usually does. A surgeon must decide on an optimal extent of dissection to achieve a nuanced equilibrium between safety and efficacy.

Changes in the text: We added the challenges and importance of a safe margin in a separate paragraph (Line 85-91, Page 5).

Reviewer B

Comment 1: The one thing I tell you is that the resection margin should be mentioned in this wedge resection for treating GGN.

Reply 1: This concern is similar to Comment 2 by Reviewer A, which was addressed

simultaneously in our reply to Reviewer A.

Changes in the text: We added the challenges and importance of a safe margin in a separate paragraph (Line 85-91, Page 5).