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Editorial
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Quality Parameters for Wedge Resections: Why not?

Federico Raveglia[1], Alessandro Baisi[1], Matilde De Simone[1] and Ugo Cioffi[2]*

[1]Thoracic Surgery Unit, San Paolo Hospital, University of Milan, Italy

[2]Department of Surgery, University of Milan, Italy

Dear Editor,

For patients with early-stage Non–Small Cell Lung Cancer (NSCLC) not fit for lobectomy, treatment options include surgery with sublobar resection. Its outcomes, indeed, despite worse than lobectomy or any other anatomic resection, are satisfying. It is common opinion that sublobar resections are affected by two main lacks. The first one is represented by margin that could be interested by macroscopic or microscopic tumor foci. The second one is represented by a supposed impossibility of satisfying nodal dissection. Moreover, for both these points, it is difficult to determine if the actual problem concerns surgical technique or surgeons' habits. Nowadays, correct assessment of wedge resection efficacy for early-stage NSCLC is needed also during comparison with Stereotactic Body Radiotherapy (SBRT) as alternative approach in patients with poor general conditions. However, since wedge resection outcomes could be influenced, as reported above, by technical aspects or surgeons' habits, a definition of quality for non anatomic resection should be encouraged; quite the opposite, data on the quality of non anatomic resection are limited. Recently, Ajmani et al. [1] have published a study about this topic. The variables as quality indicators were margins (R0 *vs.* R+) and numbers of Lymph Nodes (LNs) examined. This paper is interesting and prompts to a vibrant discussion, indeed, with a population of 10.032 patients enrolled; it provides a reliable "state of the art" about sub-anatomical resections in North America. Surprising, only 17.1% of patients had correct operative nodal staging (>5 LNs examined), determining an overall upstage of "only" 3% (primarily N1) versus 20% in literature. Whereas, negative margins were showed in the most of cases (94.6%). These data could reveal that lymphadenectomy was intentionally neglected rather than obstructed by technical difficulties. Since Authors results show that overall survival worsen when surgical quality is low, their conclusions would suggest the need of common recommendations about minimum objective to reach, when performing sub-anatomical resections. This is even more desirable if we want to seriously support wedge resection versus SBRT. If nodal statement is a real point in sub-anatomical resection, also margins are determinant as showed in the paper. However, quality of margins assessment is more challenging. For example, Authors only codified the positive or negative status of margins, despite many series reported that survival is related to distance between tumor and margin [2] that should be at least 1.5 cm [3].

Moreover, discussion get more complicated if we consider that there are different ways to measure "margin length". Our main concern about the possibility to classify wedges is their heterogeneity. Apart of margins length, also the resection shape changes based on tumor position and surgeons routine. Shape of parenchyma resected is also determined by open or closed approach and number of ports. Unfortunately resection shape is hard to be described, but we think that this

Figure 1: Parenchyma resection by staplers oriented to the hilum with V shape margin.

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Correspondence:
Alessandro Baisi, Thoracic Surgery Unit, San Paolo Hospital, University of Milan, Italy,
E-mail: Alessandro.baisi@unimi.it

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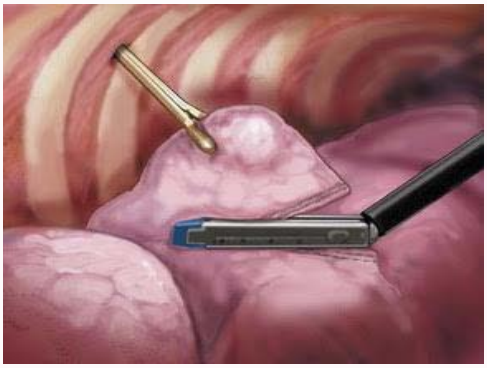

Figure 2: Parenchyma resection by staplers oriented quite tangential to visceral pleura with straight line margin.

could be a critical parameter. In our opinion resection should be as deep as possible toward the hilum, mimicking a segmentectomy. Otherwise, if the resection is tangential to pleura it could involve more parenchyma from healthy adjacent segments than from the pathological one (Figure 1 and 2). To conclude, if high-quality wedge appears to confer a significant survival advantage over lower-quality wedge and stereotactic radiation, standards to determine quality are still unclear. Negative margins and nodal dissection are surely requested but perhaps more rigorous criteria about resection shape and number of nodal stations sampled could be useful.

References

1. Ajmani GS, Wang CH, Kim KW, Howington JA, Krantz SB. Surgical quality of wedge resection affects overall survival in patients with early stage non–small cell lung cancer. J Thorac Cardiovasc Surg. 2018;156(1):380-91.
2. Baisi A, Raveglia F, De Simone M, Cioffi U. Do Margins Really Affect Prognosis in Wedge Resection for Early-Stage Lung Cancer? Ann Thorac Surg. 2016;101(4):1629.
3. Sawabata N. Who should decide margin length in pulmonary excision of lung cancer? J Thoracic and Cardiovasc Surg. 2014;148(1):370-71.