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Do Lung Secondary Nodules Always Mean Metastasis?

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We read with interest the paper by Stiles et al. (1) about the prognostic impact of secondary nodules (SNs) in patients submitted to lung resection for non small cell lung cancer (NSCLC). SNs finding at preoperative CT scan for early stage lung cancer is a frequent occurrence. Unfortunately, their pathologic diagnosis is often difficult or impossible. Therefore, the decision to do not suspend surgery, considering them to be either benign or second primary malignancy rather than metastatic, it is based exclusively on surgeon personal experience. As underlined by Ng (2), the Authors conclude suggesting to do not suspend surgery despite the impossibility to exclude a metastatic nature of SNs. In fact, according to their data, the rate of SNs detected on initial CT scans for dominant lung tumors referred for surgery was high (>50%), but the rate of malignancy in these nodules was low (13% of total SNs resected). Moreover, the authors report that survival was not influenced by SNs and that, surprising, morphologic CT characteristics (solid or nonsolid nodules) were not predictors of malignancy at multivariate statistical analysis.

Our concerns with their results are two.

First of all, this is a retrospective study. Therefore, the low rate of malignancy in resected SNs may be influenced by some elements of surgical judgment in recruiting patients. In other words, patients were referred for surgery despite of SNs, because SNs have been already considered benign, probably based on several further information (patient age, clinical history, smoke attitude, nodal status, absence of nodule growth etc.).

The second concern is about tumor histotype. In fact, 105 SNs (77%) were solid and only 21 (15%) were ground glass opacities (GGOs) at CT scan. It is common opinion that GGOs have a higher probability to be malignant than solid nodules. These

population characteristics could have influenced both the low rate of malignancy detected and the favorable survival.

To conclude, the Authors results, the overall 5-years survival (that was not different among all patients with or without SNs) and the prognostic influence of nodule size and side are interesting and useful for current clinical practice. However, further prospective data are necessary. Moreover, we think that GGOs, contrary to solid nodules, are multifocal tumors and therefore different criteria should be adopted in their treatment, as suggested by Gu et al (3) in a recent paper.

REFERENCES

1. Stiles BM, Schulster M, Nasar A, Paul S, Lee PC, Port JL, et al. Characteristics and outcomes of secondary nodules identified on initial computed tomography scan for patients undergoing resection for primary non-small cell lung cancer. *J Thorac Cardiovasc Surg.* 2015; 149: 19-24
2. Ng T. The prevalence and fate of secondary nodules found in patients undergoing resection for lung cancer. *J Thorac Cardiovasc Surg* 2015; 149: 24-5.
3. Gu B, Burt BM, Merritt RE, Stephanie S, Nair V, Hoang CD, et al. A dominant adenocarcinoma with multifocal ground glass lesions does not behave as advanced disease. *Ann Thorac Surg* 2013; 96: 411-8