would this feature be associated with similar benefit in patients with larger tumors?

The authors should be commended for conducting this relevant and timely investigation, which may prove to be a pivotal study to change our staging and curative approach to patients with lung cancer displaying this radiologic characteristic.

See Article page 791.

Commentary: The ground-glass opacity: “The savior” for lung cancer?

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Watanabe and colleagues' study¹ showed that part-solid lung cancer with a minor ground-glass opacity (GGO) component ($\leq 25\%$) had better recurrence-free survival and overall survival than pure-solid lung cancer. Their results are consistent with previous findings that a GGO component is a favorable prognostic predictor for lung cancer.^{2,3} Clinically, subsolid and pure-solid lung cancer exhibit quite different natural courses. The natural evolution of subsolid nodules may be from pure GGO nodule to part-solid nodule, and eventually to pure-solid one, whereas pathologically preinvasive lesions (atypical adenomatous hyperplasia or adenocarcinoma in situ/minimal invasive adenocarcinoma) evolve to invasive adenocarcinoma. Although the evolution is sometimes slow, the actual growing pace of the GGO is uneven and unpredictable. In contrast, pure-solid tumors grow rapidly, and very small

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CENTRAL MESSAGE

Solid-predominant lung cancers have a lymphatic metastasis rate of 9%; more invasive surgical extent including systemic lymph node dissection is needed.

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pure-solid nodules that have had mediastinal lymph node metastasis were reported previously.⁴ In addition, the prevalence of lymphatic metastasis is always low for subsolid malignancies, especially if there is no lymphatic metastasis for GGO-predominant tumors.⁵ However, in this study, there were 9% (11/126) N1/N2 metastases for solid-predominant lung cancers. The lymphatic metastasis rate of 9% is not a rare event, and more invasive surgical extent, including systemic lymph node dissection, is still necessary for solid-predominant tumors. Further studies should focus on these tumors with lymph node metastasis, because once the lymph nodes are involved, the GGO component may not be a favorable prognostic factor according to our unpublished data. The predictors for lymphatic metastasis and pattern of lymphatic metastasis need to be investigated.

In addition, when we focus on radiologically solid-predominant tumors with percentage of solid component >75%, how can we differentiate them from the pure-solid tumor with minor surrounding inflammation? For the minor GGO component, it could be the inflammation on histology. If the GGO component is regarded as “the savior” for lung cancer, how can we differentiate “the savior” from the common people? Accordingly, the different radiologic features of the minor GGO lesions should be investigated. The pathologic whole-mount section, which can perfectly match the radiologic and pathologic features of subsolid tumors, may be a good method to address this issue.

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