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Commentary: A picture really is worth a thousand words

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Hattori and colleagues¹ present compelling data that demonstrate the beneficial impact of ground-glass characteristics when accompanying solid lung cancers. Strengths of this study include the inclusion of a sizable number of patients, the inclusion of data from several institutions, carefully performed measurements verified by multiple investigators, and the long follow-up necessary to reach reliable and valid conclusions. The results add another dimension to the issue of ground-glass lesions that, while not as common in the West, are increasingly being seen due to the adoption of computed tomography-based lung cancer screening. The main limitation of the data gathered in the authors' work is the lack of positron emission tomography scan information. Notwithstanding this limitation, the utility of these findings over and above pathologic examination of the lesions is the ability to use the data for surgical



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CENTRAL MESSAGE

Imaging data may contribute to much greater prognostic information than previously appreciated.

decision-making instead of simply determining prognosis after the fact.

The utility of the results published here provoke important questions. First, in this era of the creation of large databases, should we not be collecting images along with clinical data to facilitate the conduct of such investigations in the future? Surely, with the logarithmic expansion of data-storage capacity, this should be feasible. Second, it is clear that we have not maximized the use of relatively straightforward measures such as imaging characteristics and pathology information (spread through air spaces [STAS]² as a prime example), whereas the emphasis on more complex genomic data has occupied our efforts. Perhaps we need to renew our enthusiasm for simpler solutions. Third, if a straightforward characteristic such as the ground-glass nature of radiographic opacities has

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such important prognostic value, more complex algorithms such as “radiomics” may be able to enhance predictive abilities multifold.^{3,4} This potential makes it even more important to consider the inclusion of critical images in existing surgical databases. Perhaps, in the future, a “radiomic score” will become part of a pre-resection staging that guides surgical therapy.

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