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PROGNOSTIC RELEVANCE OF HISTOLOGIC FEATURES OF LOCAL INVASIVENESS: GRADE, V, L, PM, VISCERAL PLEURAL

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Backgrounds

TNM staging is a world-widely used system reflecting the phase of anatomical tumor spread and it is validated by differences in survival. Tumor size is an absolute indicator for prognosis and T status in staging. Pleural invasion and intrapulmonary metastasis are also included in staging system but some local invasiveness status (lymphatic invasion, vascular invasion, and spread through air spaces (STAS)) and histological grade are not considered in staging. This presentation focuses on the relationship among tumor size, local invasiveness, and histological grade in N0M0 lung adenocarcinoma. In addition, the potential utility of targetable genetic status in staging is discussed.

Methods

Pleural invasion and intrapulmonary metastasis are considered as T descriptor. Lymphatic invasion, vascular invasion, STAS, and histological grade are local invasive or tumor spread status but not reflected in staging system. The relationship of these phenomenon is reviewed and discussed. As other status affecting prognosis, the targetable genetic statuses are reviewed.

Results

The incidence of pleural invasion, intrapulmonary metastasis, lymphatic invasion, vascular invasion, and STAS gets higher according to tumor growth or upgrade in histological phenotype. Their incidence can increase simultaneously and they overlap; the higher T status or histological grade, the higher incidence of local invasions or STAS. They are relevant to prognosis but do not be indication of adjuvant treatment. Whereas the incidence of genetic status is related to histological subtype but less relevant to T status. Genetic status suggests the indication of target therapy and studies suggest adjuvant or post-recurrence target therapies improve the prognosis.

Conclusions

Local invasion and histological grade are relevant to prognosis but they overlap one another and might be another aspect of tumor growth or higher T status. The incidence of targetable genetic

status is relevant to histological grade but independent from T status. They can suggest the adequate choice of adjuvant drug and contribute to longer survival.

In conclusion, local invasion, STAS, and histological grade are relevant to prognosis, some are included in staging and others are not. We have to keep in mind the impact of one phenomenon can be overestimated due to overlap with another phenomenon, and nowadays prognosis can be prolonged by target therapy or immuno-therapy even cases with invasion status.

References

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