

Expression and clinical significance of MTA1 in non-small cell lung cancer

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
摘要

Background and objective Metastasis-associated gene 1 (MTA1) has been studied deeply recently as a tumor infiltration and metastasis gene. It was expressed in many tumor cell line and was correlated with tumor infiltration and metastasis. The aim of this study is to investigate the relationship between the expression of MTA1 and invasion and metastasis of non-small cell lung cancer (NSCLC). Methods Optimal conditions of nested reverse transcription polymerase chain reaction (RT-PCR) were found out; then the expression of MTA1 mRNA in 42 samples of primary carcinoma tissues, paracancerous tissues, normal tissues and corresponding lymph nodes were compared with 20 lung innocence tissues at semi-quantitative level and the results were compared with clinical pathologic data. Results Average expression of the MTA1 gene in NSCLC primary carcinoma tissue (1.50 ± 0.26) and lymph nodes with metastasis (1.88 ± 0.35) was remarkably higher than that in normal tissue (1.02 ± 0.17) and lung innocence tissue (0.90 ± 0.15) ($P < 0.01$). Average expression of the MTA1 gene in NSCLC primary carcinoma tissue (1.50 ± 0.26) was significantly higher than that in paracancerous tissue (1.09 ± 0.16). Average expression of the MTA1 gene in lymph nodes with metastasis (1.88 ± 0.35) was significantly higher than that in those without metastasis (1.40 ± 0.36) ($P < 0.01$). The frequency of MTA1 overexpression in NSCLC tissue was closely correlated with clinical staging, T staging and N staging; the frequency of MTA1 overexpression was 45.2% (19/42) in NSCLC tissue. The frequency of MTA1 overexpression was 84.2% (16/19) in lymph nodes with metastasis. The expression level of MTA1 gene in cancer tissues was not related to age, gender of the patients and type of tumor. Conclusion Our data suggests that the overexpression of the MTA1 gene correlates with invasion and metastasis of NSCLC. A high expression of MTA1 mRNA may be a potential indicator for assessing the malignancy and metastasis of NSCLC.



关键词

MTA1 gene; Lung neoplasms; Neoplasm metastasis

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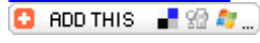
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