Erratum


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Abstract: Objective: Long non-coding RNAs (lncRNAs) XIST and HIF1A-AS1 have been shown to play important regulatory roles in cancer biology, and lncRNA-XIST and HIF1A-AS1 are upregulated in several cancers such as glioblastoma, breast cancer and thoracoabdominal aorta aneurysm, however, its value in the diagnosis of non-small cell lung cancer (NSCLC) is unclear. The aim of this study is to evaluate the clinical significance of serum XIST and HIF1A-AS1 as a biomarker in the screening of NSCLC. Methods: Expression levels of lncRNA-XIST and HIF1A-AS1 in tumor tissues and serum from NSCLC patients were evaluated by quantitative real-time PCR, and its association with overall survival of patients was analyzed by statistical analysis. Moreover, the XIST and lncRNA-XIST expression correlation between tumor tissues and plasma was demonstrated by linear regression analysis. Results: The levels of XIST (P < 0.05) and HIF1A-AS1 (P < 0.05) were significantly increased in tumor tissues or serum from NSCLC patients as compared to those of control group. Correlation of lncRNA-XIST or HIF1A-AS1 expression between tumor tissues and serum from the same individuals was confirmed in NSCLC patients. Moreover, serum levels of XIST and HIF1A-AS1 were significantly decreased after surgical treatment as compared to pre-operative. The ROC curves illustrated strong separation between the NSCLC patients and control group, with an AUC of 0.834 (95% CI: 0.726-0.935; P < 0.001) for XIST and 0.876 (95% CI: 0.793-0.965; P < 0.001) for HIF1A-AS1, however, the combination of XIST and HIF1A-AS1 yielded an AUC of 0.931 (95% CI: 0.869-0.990; P < 0.001), which was significantly improved as compared to XIST or HIF1A-AS1 alone. Conclusion: Our results demonstrated that increased serum XIST and HIF1A-AS1 could be used as a predictive biomarker for NSCLC screening, and that combination of XIST and HIF1A-AS1 had a higher positive diagnostic efficiency of NSCLC than XIST or HIF1A-AS1 alone.

Keywords: Non-small cell lung cancer, long non-coding RNA, XIST, HIF1A-AS1, tumor biomarker

Disclosure of conflict of interest

None.

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