



Detection of telomerase activity and cytology in diagnosis of cardiac cancer

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Received: May 18, 2000
Revised: June 24, 2000
Accepted: July 10, 2000
Published online: September 15, 2000

Abstract

AIM: To investigate the diagnostic significance of cytology and telomerase activity in the exfoliated cells of cardia obtained from endoscopic brushing in the cardiac cancer.

METHODS: The techniques of the qualitative TRAP-silver staining and quantitative TRAP-PCR-ELISA were employed to detect telomerase activity in the exfoliated cells of cardia obtained from endoscopic brushing in 72 cases with cardiac lesions, cytological

diagnosis was made at the same time.

RESULTS: Telomerase activity with cardiac cancer group (1.521 ± 0.192) was significantly higher than that with cardiality group (0.065 ± 0.014). Positive rate of telomerase activity detected in cardiac cancer group (88.89%) was significantly higher than that with cardialitis group (11.11%), the former was significantly higher than cytological examination (77.78%). The diagnostic rate of cardiac cancer reached 93.33% if telomerase activity and cytology were examined at the same time.

CONCLUSION: Cytology and telomerase activity in the exfoliated cardiac cells may be an effective and sensitive methods in the diagnosis of cardiac cancer. This research can be a basis for the mass screening of cardiac cancer. the National Natural Science Foundation of China, No. 39900177.

Key words: Stomach neoplasms/diagnosis; Cardiac/cytology; Telomerase; Exfoliated cell; Gastroscopy; Mass screening

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Wang Q, Wu QM, Li SB. Detection of telomerase activity and cytology in diagnosis of cardiac cancer. *World J Gastroenterology* 2000; 6(Suppl 3): 46
Available from: URL: <http://www.wjgnet.com/1007-9327/full/v3/iSuppl3/46.htm>
DOI: <http://dx.doi.org/10.3748/wjg.v3.iSuppl3.46>

E- Editor: Hu S



Published by **Baishideng Publishing Group Inc**

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