

## Detection of telomerase activity in malignant neoplasms and nonmalignant epithelial tissues of human esophagus

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### Abstract

**AIM:** To study the expression of telomerase activity in malignant esophageal neoplasms and normal human esophageal epithelia.

**METHODS:** Telomerase activity was assayed by the telomere repeat amplification protocol (TRAP) method. All the neoplasms and epithelia of esophagus were confirmed by routine pathological diagnosis.

**RESULTS:** Telomerase activity was assayed in 18 normal esophageal epithelial tissues and in 35 malignant neoplasms of esophagus, including 27 cases of esophageal carcinoma and 8 cases of cardiac carcinoma. Telomerase activity was detected in most of malignant neoplasms of esophagus (91.4%, 32/35) and in all the normal esophageal epithelial tissues except one (18/19).

**CONCLUSION:** The results suggest that in addition to contributing to proliferation of immortal blast cells and neoplastic cells, telomerase activity may also play a similar role in regeneration of normal epithelia of human esophagus. The potential use of telomerase activity as a diagnostic marker in human esophageal neoplasm might not be suitable.

**Key words:** Telomerase; Telomerase repeat amplification protocol; Esophagus neoplasms/diagnosis; Esophagus epithelia

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