

学位論文の要旨

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主論文の題名			
Correlation of CD133, OCT4, and SOX2 in Rectal Cancer and Their Association with Distant Recurrence After Chemoradiotherapy			
主論文の要旨			
<p>Background. Cancer stem cells are associated with metastatic potential, treatment resistance, and poor patient prognosis. Distant recurrence remains the major cause of mortality in rectal cancer patients with preoperative chemoradiotherapy (CRT). We investigated the role of three stem cell markers (CD133, OCT4, and SOX2) in rectal cancer and evaluated the association between these gene levels and clinical outcome in rectal cancer patients with preoperative CRT.</p> <p>Methods. Thirty-three patients with rectal cancer underwent preoperative CRT. Total RNAs of rectal cancer cells before and after CRT were isolated. Residual cancer cells after CRT were obtained from formalin-fixed paraffin embedded specimens using microdissection. The expression levels of three stem cell genes were measured using real-time reverse-transcription polymerase chain reaction.</p> <p>Results. There were significant positive correlations among the three genes after CRT. Patients who developed distant recurrence had higher levels of the three genes compared with those without recurrence in residual cancer after CRT. These elevated gene levels were significantly associated with poor disease-free survival.</p> <p>Conclusions. Expression of CD133, OCT4, and SOX2 may predict distant recurrence and poor prognosis of rectal cancer patients treated with preoperative CRT. Correlations among these genes may be associated with tumor regrowth and metastatic relapse after CRT.</p>			