学位論文の要旨

三 重 大 学

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主論文の題名

Early Alteration in Apparent Diffusion Coefficient and Tumor Volume in Cervical Cancer Treated with Chemoradiotherapy or Radiotherapy: Incremental Prognostic Value over Pretreatment Assessments

主論文の要旨

Our study aimed to evaluate a prognostic value of early changes in apparent diffusion coefficients (ADC) and tumor volume during treatment in patients with cervical cancer treated with chemoradiotherapy or radiotherapy, and to assess whether the early changes provided an incremental value to pre-treatment ADC and tumor volume in predicting disease recurrences. %ADC increase and %Volume reduction were defined as changes in the ADCs and tumor volume before and during treatment, respectively. Univariate Cox regression analysis revealed that pre-treatment ADC, %ADC increase, and %Volume reduction were significant predictors for disease recurrences. On multivariate analysis, %ADC increase was the only independent predictor for disease recurrences when adjusted for %Volume reduction and pre-treatment ADC. Global chi-square analysis demonstrated that %ADC increase and %Volume reduction had an additional prognostic value over pre-treatment ADC and tumor volume. Kaplan-Meier curve analysis showed that both smaller %ADC increase and %Volume reduction were associated with worse prognosis in disease-free survival. Among patients with cervical cancer treated with chemoradiotherapy or radiotherapy, early changes in ADCs and tumor volume during treatment are associated with prognosis and have an additional prognostic value for predicting tumor recurrence to pre-treatment ADC and tumor volume.