Differences of prognosis among left-sided colon, right-sided colon and rectal cancer: an analysis in a Chinese cancer institute

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Recent studies have reported that the prognosis of colorectal cancer is different according to tumor location. The aim of this study is to assess clinicopathological and prognostic disparities among different sited cancers.

Our analyses indicated that tumor sidedness could be a useful prognostic factor in predicting recurrence but not for long-term survival concerning colorectal cancer patients.

Background: Recent studies have reported that the prognosis of colorectal cancer is different according to tumor location. The aim of this study is to assess clinicopathological and prognostic disparities among different sited cancers.

Methods: 453 patients of stage I-III who underwent surgery for colorectal carcinoma from August 2010 to September 2012 were evaluated. Univariate and multivariate analyses were constructed to demonstrate prognostic factors and the impact of tumor location on the long-term outcome.

Results: The risk of recurrence in left sided colon group within the five years was significantly lower than right sided colon group ($p = 0.002$). Patients with right-sided cancer were inclined to be female, an older age when diagnosed, more low-microsatellite instability and PIK3CA mutation. The incidence of liver metastasis in right sided cancers is also higher than that of left sided cancers and rectal cancers in 5 years follow-up period (31%, 23%, 25%, $p = 0.025$). Median overall survival was 93, 87, 89 months for left, rectal and right cancers respectively ($p = 0.927$). By Cox multivariate analysis, no significant difference was observed concerning prognostic factors of 5-year overall survival among right, left sided colon and rectal cancers.

Conclusions: The study indicates that tumor sidedness can be a useful prognostic factor in predicting recurrence but not for long-term survival concerning colorectal cancer patients.