SB07

RELATIONSHIP BETWEEN LYMPH NODE RATIO AND TUMOR CHARACTERISTICS WITH SURVIVAL IN COLORECTAL CANCER PATIENTS: A RETROSPECTIVE DESCRIPTIVE CASE SERIES STUDY (RUNNING TITLE: LYMPH NODE RATİO İN COLORECTAL CANCER)

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Introduction - Purpose: Lymph node metastasis is the predominant prognostic indicator in colorectal cancer. Furthermore, the number of lymph nodes removed surgically and evaluated pathologically has been demonstrated to affect both staging accuracy and oncologic outcomes. However, the number of lymph nodes removed in each patient depends on many uncontrolled variables. Therefore, a more reliable prognostic indicator is needed. Hence, the ratio of positive lymph nodes to the total number of removed lymph nodes may be an appealing solution.
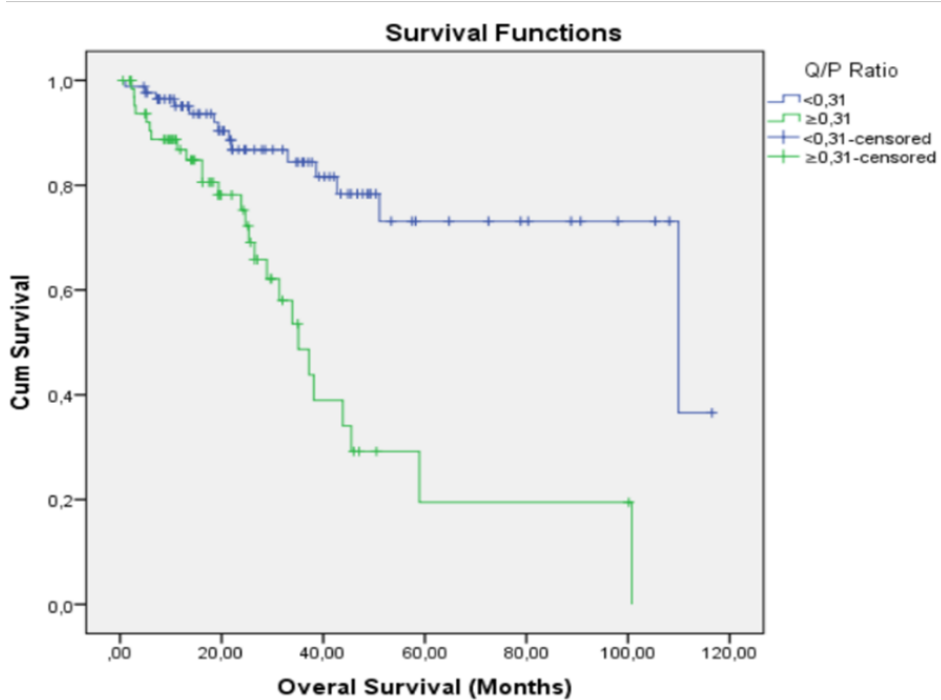
Methods - Tools: We retrospectively collected the data of 156 stage III colorectal cancer patients between January 2008 and June 2015. Patients' demographic characteristics, tumor grade, location, vascular-perineural invasion status, number of lymph nodes removed and the ratio of positive lymph nodes were recorded. The Spearman correlation analysis was used to determine the correlation coefficient, Kaplan-Meier method was performed to analyze survival and Cox proportional hazard regression model was used for multivariate analysis.

Findings : Total number of removed lymph nodes was not correlated with survival, but it was positively correlated with the number of positive lymph nodes. Multivariate analysis showed that the ratio of positive lymph nodes to the total number of removed lymph nodes was a significant prognostic factor for survival. A ratio above 0.31 was found to be a poor prognostic indicator. Tumor characteristics like T stage, location, grade, perivascular and perineural invasion failed to demonstrate any prognostic value.

Discussion: This study showed that positive lymph node ratio is an important prognostic factor for stage III colorectal cancer. Although the appropriate stratification for this ratio is unclear, 0.31 can be taken as a cut-off value for poor prognosis.

Keywords: Colorectal cancer, lymph node ratio, positive lymph node, survival, total lymph node

Image Description

Survival Functions

Q/P Ratio
- <0,31
- ≥0,31
- <0,31-censored
- ≥0,31-censored

Cum Survival — Overal Survival (Months)

overall survival