THE PROGNOSTIC VALUE OF PREOPERATIVE SERUM CEA AND CA19-9 VALUES IN STAGE I ~ III COLORECTAL CANCER

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Methods: The study included 724 patients who had received radical resection for stage I ~ III colorectal cancer in the cancer hospital of Fudan University. We retrospectively investigated the relationship between patients’ characteristics and survival, using univariate and multivariate analyses. In univariate analysis, variables including patients’ age and gender; tumor differentiation, location, and depth of invasion; number of lymph nodes found; number of metastatic nodes; and preoperative CEA and CA19-9 values were analyzed. In multivariate analysis, factors found significant in the univariate analysis were compared with patients’ outcomes.

Results: In univariate analysis, differentiation (p < 0.001), depth of invasion (p < 0.001), number of lymph node metastases (p < 0.001), and elevated levels of CEA (p < 0.001) and CA19-9 (p < 0.001) were closely correlated with patients’ survival; patients who had both CEA and CA19-9 positive values had the worst prognosis, whereas those who had both CEA and CA19-9 negative values had the best prognosis (p < 0.001). In multivariate analysis, the number of lymph node metastases (p < 0.001), preoperative CA19-9 (p = 0.015) and CEA (p = 0.028) values, differentiation (p = 0.040) and depth of invasion (p = 0.039) were independent prognostic factors for survival.

Conclusion: Preoperative CA19-9 and CEA have independent prognostic values in stage I ~ III colorectal cancer. Elevation of and both CEA and CA19-9 values predicted the worst outcome.

Background: There is disagreement about the prognostic value of serum carcinoembryonic antigen (CEA) and carbohydrate antigen 19-9 (CA19-9) in patients who have stage I ~ III colorectal cancer. Therefore, we investigated the relationship between preoperative serum CEA and CA19-9 levels and clinical outcome in patients with this disease.