

posters

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HYPERURICEMIA AT TIME OF DIAGNOSIS IS A POOR PROGNOSTIC FACTOR FOR PATIENTS WITH COLORECTAL CANCER: A PILOT STUDY

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Introduction: Increased levels of serum uric acid were found to exhibit statistically significant relation with decreased survival for various malignancies in men and women. But effect on survival in patients with cancer is not clear. According to this basic knowledge, hyperuricemia may be associated with poor survival in colorectal cancer. In this study, baseline serum uric acid levels was investigated whether effect on prognosis in colorectal cancer patients.

Methods: The subjects of this retrospective, cross-sectional study were selected from 148 patients with colorectal cancer. A total of 109 (74 men) eligible patients with colorectal cancer whose medical file information was complete and who did not meet the exclusion criteria (diabetes, metabolic syndrome, gout disease, chronic renal failure, and hematological malignancies) were enrolled in this study. Subjects were categorized into two groups with or without hyperuricemia according to the level of serum uric acid at time of diagnosis: Group 1 (with hyperuricemia) and Group 2 (without hyperuricemia). Comparison was made using demographical, histopathological,

laboratory variables, and clinical outcomes. Additionally, curve analysis and areas under the curve were calculated. Sensitivity, specificity, and positive and negative likelihood rates for clinical outcomes were then determined. Survival analysis were made by Kaplan-Meier curve.

Results: The presence of hyperuricemia was detected in 57 of 109 patients. Median age of all patients was 56 years (range: 46-81). Majority of patients were male (68%), with rectum cancer (56%), poorly differentiated tumor (86%), had histology of adenocarcinoma (91%), and were operable at the time of diagnosis (67%), received adjuvant chemotherapy (63%). Additionally, in Group 1; majority of cases were with colon cancer (59%), mild differentiated tumor (69%), had adenocarcinoma histology (94%), with lymphovascular invasion (94%), TNM stage 3 and 4 diseases (84%), and with lung metastases (64%). When cut-off point for the latter was set as 7.6 mg/dl, the under the curve was 0.87 (95% CI 0.74-0.93), the sensitivity was 98.4%, the specificity was 93.7%, the positive likelihood rate was 3.18 and the negative likelihood rate was 0.24 for increased lung metastasis. The median follow-up of all patients with was 79 months (range: 8-84). A median 5-year overall survival was 56.4 in all patients, it was 31.7 months in Group 1 and it was 59.7 months in Group 2 (P = 0.0018). In correlation analyses, overall survival was significantly negatively correlated with hyperuricemia ($r = -0.641$, $P = 0.014$). Finally, hyperuricemia found to be poor independent prognostic factor for overall survival (HR 3.18 95%CI 1.86-4.98, $P = 0.011$).

Conclusion: In this study, it showed that hyperuricemia in patients with colorectal cancer was significant poor prognostic factor for overall survival. This results in this study not differ from previously studies on relationship with serum uric acid level and cancer outcomes. However, baseline level of serum uric acid could help to determined high risk patients with lung metastasis in patients with colorectal cancer.