Prognostic significance of two dimensional agnor evaluation in local advanced rectal cancer with treated chemo radiotherapy

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The aim of this study is to reveal the prognostic importance of Argilophilic Nucleolus Organizer Region (AgNOR) proteins on the patients with stage II-III rectal cancer with chemoradiotherapy. Silver staining technic was applied to the 3 µm section collected from the parafin blocked tissues on 30 rectal cancer patients who treated with 5-FU based chemotherapy and 50.4 Gy (1.8 Gy/day, 28 fractions) external beam radiotherapy to the pelvic lymph nodes and tumor bed, between May 2003 – June 2006 at University of Erciyes, M.K. Dedeman Oncology Hospital. The microscopic displays of the cells were transferred in to the computer medium via video camera. AgNOR area/Total Nucleus area (NORa/TNa) values were found. The facts are analysed in terms of locoregional recurrence (LRR), disease free survival (DFS) and overall survival (OS). The statistical analysis was accomplished by SPSS 15.0 package programme. OS and DFS in the high NORa/TNa (>9.02) patients were 52.21 months and 39.41 months, respectively. OS and DFS in the low NORa/TNa (<9.02) patients were 100.69 months and 98.38 months, respectively. A statistically significant difference was found between high NORa/TNa patients and low NORa/TNa patients (p=0.001) and the prognosis in the high NORa/TNa patients was worse (p<0.05). In terms of OS and DFS, a statistically significant negative correlation was found with value of NORa/TNa in the correlations tests (p=0.001). Additionally, there was a statistically significant correlation found between NORa/TNa and LRR (p=0.020). As a result, we suggested that two-dimensional AgNOR evaluation may be a safe and usable parameter for prognosis and indicator of cell proliferation instead of AgNOR dots.

Biography
Nalan Imamoglu has completed her PhD from Erciyes University, Medical Faculty, Department of Medical Biology in Turkey. Her present occupation is Assoc. Prof. Dr. Her scientific interests are cytogenetics, tumour/cancer biology and genetics and genotoxicity. She is a member of Society of Medical Biology and Genetics and Society of Medical Genetics. She has published about 20 papers in reputed journals.

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