PREDICTIVE ROLE OF THE NEUTROPHIL/LYMPHOCYTE RATIO IN SURVIVAL AT MULTIPLE MYELOMA: A SINGLE CENTER EXPERIENCE

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Objective: Multiple myeloma (MM) has a complex pathogenesis including interactions between myeloma cells and bone marrow microenvironment. Recent studies show a positive correlation between tumor related immune response markers and poor outcome in solid tumors. However, there is limited data on the prognostic value of these markers in MM. In this study we aimed to find out one of them, the neutrophil/lymphocyte ratio (NLR), which is recently reported as a useful prognostic factor. It is believed that this would be the second report about predictive role of NLR in survival of MM patients. Methods: We retrospectively reviewed data of 52 MM patients diagnosed and treated at Dışkapı Training and Research hospital between 2009-2013. The baseline NLR was calculated using data obtained from complete blood count (CBC). The patients were grouped as NLR ≤1.72 (n:22) and NLR >1.72 (n:30) by using ROC analysis to determine a cutoff. We compared two groups in terms of both known prognostic factors of MM and overall survival (OS). Results: Our study showed that NLR is associated with well known prognostic factors like CRP and β2 microglobuline (p=0.02 and p=0.001 respectively). The patients with NLR ≥1.72 had significantly worse ISS stages, ECOG performance status and kidney functions. The whole group’s OS was estimated as 35.1 months while patients with NLR≤1.72 at diagnosis had better OS compared with those with NLR>1.72 (42.75 and 26.14 months respectively, p:0.04) Conclusion: NLR, which is also associated with ISS, ECOG and kidney functions, can be used in daily practice as a simple and cost-effective predictor of survival in MM. Simply adding NLR in routine charts might be helpful in giving attention on patients’ inflammatory response status associated risk and might enrich our data for larger studies.