

AB055. 158. The usefulness of the pre-operative neutrophil/lymphocyte ratio and platelet/lymphocyte ratio in predicting recurrence in breast cancer patients?

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Background: The systemic inflammatory response is an established factor in cancer development and progression. Inflammation can support tumour growth, invasion, angiogenesis and eventually metastasis. An elevated ratio of peripheral neutrophil to lymphocytes and platelet to lymphocytes has been recognised as a poor prognostic indicator in various cancers. The aim of this study was to determine if the neutrophil to lymphocyte ratio (NLR) and platelet to lymphocyte ratio (PLR) can act as a predictor of recurrence in patients undergoing primary breast cancer surgery within University Hospital Limerick between 2010 and 2015.

Methods: NLR and PLR were recorded on those patients

undergoing primary breast cancer surgery at the time of diagnosis. Pre-operative NLR and PLR in patients who remained disease free were compared to patients who had a recurrence of their disease.

Results: Preliminary data collected from 245 breast cancer patients compared pre-operative NLR and PLR in 178 patients who remained disease free to 67 patients who had a recurrence of their disease. The mean NLR was higher, although not significantly, in those who had a recurrence of their disease, 2.8581 compared to 3.0978 ($P=0.162$). Conversely the PLR was lower, although not significantly, in those patients who had a recurrence of their disease, 180.66 compared to 184.42 ($P=0.266$). We believe these results are reflected by the small sample size and data collection is currently ongoing.

Conclusions: As both the NLR and PLR are relatively costless laboratory results that are routinely obtained pre-operatively, the application of these parameters into an improved individualised Breast Cancer risk assessment would be a cost-effective adjunct into clinical practice.

Keywords: Haematology; ratios; prediction; outcome

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