

inflammation being associated with a worse clinical outcome. Neutrophil Lymphocyte Ratio (NLR) is an established way to measure SIR in vivo. We aimed to establish whether preoperative NLR correlates with infective complications in patients undergoing colorectal cancer (CRC) resection.

Methods: Data was extracted retrospectively for all CRC resections over a 2 year period (2016-2018) at a single district general hospital. NLR was measured for each patient from bloods at the time of pre-operative assessment. Post-operative complications were recorded using the Clavien-Dindo classification and subsequently classified as infective and non-infective. A Two-tailed Mann-Whitney U test was used to evaluate the data from an online resource.

Results: Of the 131 patients, 49 had complications of which 20 were infective. Of total complications 58% were male and 35% were aged 75 years or older. Current or ex-smokers constituted 43% and 41 of the total patients had a BMI >30kg/m². Pre-assessment mean NLR was 2.3 in those without complications and 4.7 in those with any complication. A mean NLR of 5.4 was present in those with infective complications, p-value 0.026.

Conclusion: This study found that a raised NLR was present preoperatively in those who developed infective complications following CRC resection. This is a simple, readily available and cost-effective method of identifying patients at risk of complication. This ultimately may be useful in highlighting patients who would benefit from enhanced pre-operative optimisation. Further research to validate these findings in larger studies would seem warranted.

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Evaluating the Relationship of Pre-Assessment Host Systemic Inflammatory Response Biomarkers (Neutrophil Lymphocyte Ratio) to Post-Operative Infective Complication Risk in Colorectal Cancer Resection

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Introduction: The host systemic inflammatory response (SIR) is prognostic in a wide variety of solid tumours, with a greater degree of