5.19 Lung Cancer Resection: Is there a role for perioperative inflammatory indexes?

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Background: Perioperative inflammatory indexes can give valuable insights into immune response in patients undergoing lung cancer resection. Dissemination and evasion of tumour cells, impaired cellular immunity and elevated cytokines, due to surgical stress, can make way to recurrence, metastasis and negatively impact immunotherapy response. Inflammatory indexes can be used as a prognostic tools to predict clinical outcomes. These include Lymphocyte: Monocyte ratio, Systemic Inflammatory Response Index (SIRI) and Systemic Inflammatory Index (SII). Elevated pre-adjuvant treatment values predict poor overall survival in patients with NSCLC, as well as their predictive value in nodal disease and tumour size. **Methods:** Three timepoints; baseline, 1st follow up (2-4 days post-operatively) and 2nd follow up (6-8 weeks post-operatively) for 40 patients were collected. **Results:** Results of our patient cohort show that post-operative complications or nodal disease were not linked with elevated baseline inflammatory indexes. However, raised baseline LMR (p=0.0016), SII (p=0.0042) and SIRI (p=0.0042) were significant to predict tumour size. 52% SIRI and 40% of SII were elevated at baseline. 71% of SII and 57% of SIRI remain elevated 6-9 weeks post-operatively. **Conclusions:** Immune markers remain elevated 6-9 weeks post-operatively, showing on-going dysregulation of immune response. **Conflict of Interest:** The authors declare that they have no conflict of interest

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