

Category :**Hematology: Other**

**A102 - Perioperative behavior of inflammatory markers in cytoreductive surgery with hyperthermic intraperitoneal chemotherapy**

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**Introduction:**

Cytoreductive surgery with hyperthermic intraperitoneal chemotherapy (CRS/HIPEC) is the treatment of various abdominal and gynecological malignancies. Complexity of the procedure and effects of hyperthermia demand patients are recovered in the ICU. Biomarkers that identify patients at risk of postoperative complications could guide management in this setting [1]. Our purpose was to explore associations between neutrophil-to-lymphocyte ratio (NLR) and platelet-to-lymphocyte ratio (PLR) to clinical outcomes. We hypothesized inflammation is associated with worse outcomes.

**Methods:**

A retrospective cohort study including patients taken to CRS/HIPEC in 2017 at a university hospital was conducted. Patients were excluded if they presented an active infection, surgical trauma, and lacked preoperative laboratories. NLR and PLR were calculated from complete blood counts obtained preoperatively, 24-, 48-, 72-hours and 7 days after surgery. Inflammation was defined as NLR >2.5 and PLR >90. Primary outcomes were ICU stay, hospital stay, days of mechanical ventilation, and days to start ambulation and oral intake. Mann–Whitney and chi-square test were carried as appropriate.

**Results:**

We included 127 patients in our study. Inflammation according to NLR was present in 30.7%, 96.9%, 99.2%, 98.4%, and 91.3% of patients before surgery, 24-, 48-, 72-hours and 7 days after surgery, respectively. Inflammation according to PLR was present in 92.1%, 80.3%, 81.1%, 83.5%, and 92.9% at the same time points. A PLR>90 48-hours postoperative was associated with more days of mechanical ventilation (p 0.049). Inflammation determined by NLR and PLR was not associated with other outcomes at the timepoints evaluated.

**Conclusion:**

CRS/HIPEC is a complex procedure that requires ICU care. NLR and PLR do not predict outcomes. More studies are needed to identify markers that can impact the prognosis of CRS/HIPEC patients.

**References:**

1. Rangarajan K, et al. Int J Hyperthermia 34:559-563;2018.