Category :**Hematology: bleeding\transfusion**

A63 - ***Perioperative red blood cell transfusion in cytoreductive surgery with hyperthermic intraperitoneal chemotherapy***

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Introduction:

Cytoreductive surgery with hyperthermic intraperitoneal chemotherapy (CRS/HIPEC) is a complex procedure that may require transfusion of a large volume of red blood cells (RBC). Previously, large transfusions have been associated with worse outcomes [1]. We aimed to describe the need for RBC transfusion in patients undergoing CRS/HIPEC at a university hospital in Bogotá, Colombia, during the perioperative period and to explore possible associations with clinical outcomes.

Methods:

A retrospective cohort study was conducted, including patients who underwent CRS/HIPEC at a university hospital from 2007 to 2018. We excluded patients with blood dyscrasia, active infection, and surgical injury (vessel or solid organ). We recorded the number of RBC units transfused in the perioperative period and clinical outcomes as ICU and hospital stay, days on mechanical ventilation, ICU readmission, days to oral intake and ambulation. We used descriptive statistics according to variable distribution. Exploratory analyses were performed using ANOVA, chi-square, or Fisher exact test as appropriate.

Results:

A sample of 130 patients was analyzed. No transfusion was needed in 12% of patients, 50% required less than 4 units, and 38% received at least 4 units. Patients who required transfusion had a lower mean hemoglobin than those who were not transfused (single-factor ANOVA $p<0.01$). BMI < 18 and bleeding > 1500 ml were associated with transfusion of ≥ 4 units of RBC (p 0.016 and $p<0.01$, respectively). BMI in the overweight range was associated with no transfusions (p 0.016). Exploratory analysis showed that the ICU stay was longer in patients transfused ($p<0.01$) and more days of ventilation were needed when ≥4 units were transfused (p 0.036).

Conclusion:

Most patients programed for CRS/HIPEC will need transfusion. Risk factors in our study are underweight, heavy bleeding, and inferior preoperative hemoglobin.

References:

1. Fisher OM, et al. Eur J Surg Oncol 45:2412-2423; 2019.