Perioperative anaemia management in elective colorectal surgery

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INTRODUCTION

Anaemia is one of the most frequent extraintestinal manifestations of colorectal cancer with a prevalence up to 25% of moderate or severe anaemia. This condition has been linked to increased postoperative mortality and morbidity and allogeneic blood transfusion (ABT) ¹. Inappropriate transfusion practices may endanger patients and waste resources. Iron deficiency is the principal cause of anaemia. This situation makes it necessary to look out for new strategies in the management of perioperative anaemia. We evaluate the role of postoperative iron therapy (PIT) in the immediate postoperative period as part of a new multidisciplinary project of Enhanced Recovery After Surgery (ERAS).

MATERIALS AND METHODS

We review two cohorts: Prospective ERAS group and a retrospective NO ERAS group.

ERAS: 177 patients (108 men/ 69 women), mean age was 67.54 ±12.34 between January and November 2017 under ERAS program.

No ERAS: 66 (41 men/ 25 women), mean age was 65.8 ±13.88 patients between July and October 2015, prior protocol establishment.

Patients under the ERAS program received 300 mg of iron sucrose intravenously the day of surgery and the second day. We evaluate hemoglobin (Hb) on the first, third and fifth days after surgery and the percentage of patients requiring transfusion in the postoperative period.

RESULTS

ERAS : laparoscopic approach 65% , PIT 82%

NO ERAS : laparoscopic approach 59%, PIT 0%

laparoscopic p =0.136, PIT <0.001

CONCLUSION

In the ERAS group we found higher hemoglobin levels significantly compared to the control group, in addition we can also find a large decrease in the percentage of patients who required to be transfused. PIT could be an effective treatment to decrease incidence of postoperative anaemia after colorectal surgery. We must wait up to three weeks to observe the maximum effect of iron sucrose, so it would be interesting to observe this trend in a similar period of time for future studies. Incidence of ABT was less frequent in ERAS group. This strategy of anaemia management could avoid risk factors associated to ABT.

	NO ERAS	ERAS	p
Hb g/dl 1 st day	10,88 ± 1,86	11,65 ± 2,25	0,012
Hb g/dl 3 rd day	10,74 ± 1,76	11,35 ± 2,23	0,091
Hb g/dl 5 th day	10,82 ± 1,73	11,36 ± 1,95	0,045
% postoperative ABT	21%	5%	<0.001