

AB134. 167. Iron status before and after curative oesophagectomy, and its relation to anaemia, transfusion and postoperative outcomes

Nicola Raftery, Niamh Ni Leathlobhair, Conor Murphy, Michelle Fanning, David Koshy, Narayanasamy Ravi, John Vincent Reynolds

Department of Surgery, Trinity Centre for Health Sciences, Trinity College Dublin and St. James's Hospital, Dublin, Ireland

Background: Iron-deficiency anaemia is common amongst cancer patients undergoing major surgery and may be an important determinant perioperative morbidity, postoperative recovery, and long-term outcomes. We sought to establish the rates of iron deficiency and iron-deficiency anaemia in patients before and after oesophagectomy, and to explore the relationship with red cell transfusion requirements, inpatient length of stay (LOS), and medication use.

Methods: A retrospective analysis of prospectively recorded data from consecutive patients undergoing oesophagectomy with curative intent since incorporation of a quality-of-life focused survivorship clinic in October 2017 at St. James's Hospital, Dublin, was performed. Preoperatively, and 8–10 weeks postoperatively, clinical and biochemical measures were collected. Iron deficiency was defined using a serum ferritin <30 ug/L

with normal inflammatory markers, or <100 ug/L or transferrin saturation <20%, if c-reactive protein was elevated >5 mg/L. Sex-specific haemoglobin thresholds were used to diagnose anaemia (females: <12 g/dL, males: <13 g/dL).

Results: Forty patients [85% male, mean \pm standard deviation (SD) aged 61.9 \pm 11.4 years] underwent oesophagectomy [transhiatal, 13 (32.5%), Ivor-Lewis 22 (55%), McKeown 5 (12.5%)], with 62.5% receiving neoadjuvant therapy. Median (range) postoperative LOS was 13.2 (7.1–79.1) days. Preoperative, and follow up [55.8 (24.3–106.5) days], prevalence of iron deficiency was 50.0% *vs.* 65.7% (P=0.23), and iron-deficiency anaemia, 34.2% *vs.* 45.7% (P=0.39), respectively. 10 (25%) patients required \geq 1 in-hospital transfusion (one preoperative, two intraoperative, eight postoperative). Preoperative iron status was not associated with postoperative LOS (P=0.33) or with transfusion (P=0.69). There was no significant relationship between medications and iron deficiency.

Conclusions: Iron deficiency and iron-deficiency anaemia are prevalent in patients undergoing oesophagectomy at a high-volume centre, and rates increase postoperatively, although clinical significance is unclear, requiring further exploration of functional and long-term outcomes.

Keywords: Oesophageal cancer; oesophagectomy; anaemia; iron status; transfusion

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