

## AB060. 156. Post-operative pain following laparoscopic right hemicolectomy for Crohn's disease: a comparative study

Kevin McKevitt, Shaheel Sahebally, Sinead Galvin, John Patrick Burke

Departments of Colorectal Surgery & Anaesthesia, Beaumont Hospital, Dublin, Ireland

**Background:** Surgery for Crohn's disease (CD) can be complicated by an enhanced inflammatory response. While inflammation can induce hyperalgesia, post-operative pain following surgery for CD has not been characterized. This retrospective study aims to compare a consecutive series of patients undergoing laparoscopic right hemicolectomy for CD and neoplasia performed by a single surgeon.

**Methods:** Elective resections performed between Jan 2016 and Aug 2017 managed in an enhanced recovery pathway were eligible for inclusion. Patients were excluded if open surgery was performed, an ileostomy was fashioned, no patient-controlled analgesia (PCA) was used or data were incomplete.

**Results:** Thirty-eight cases were included, 20 for neoplasia and 18 for ileocolonic CD. There was no difference in

patient gender ( $P=0.520$ ). CD patients were younger ( $39.8\pm2.8$  vs.  $77.2\pm2.1$  years,  $P<0.001$ ) but had an equivalent length of resection ( $312.9\pm43.5$  vs.  $283.3\pm71.7$  mm,  $P=0.915$ ). CD patients had higher pain scores on post-operative day 1 ( $6.8\pm0.8$  vs.  $2.6\pm1.0$ ,  $P<0.001$ ), day 2 ( $5.0\pm0.5$  vs.  $1.6\pm0.9$ ,  $P<0.001$ ) and day 3 ( $4.1\pm0.6$  vs.  $1.3\pm0.7$ ,  $P=0.008$ ). CD patients used their PCA for longer ( $85.7\pm16.3$  vs.  $47.7\pm4.2$  hours,  $P=0.017$ ) and used a greater total amount of morphine ( $148.6\pm33.8$  vs.  $37.0\pm7.8$  mg,  $P<0.001$ ). Post-operative C-reactive protein (CRP) was higher in patients with CD on day 1 ( $P=0.011$ ), day 2 ( $P=0.001$ ), day 3 ( $P=0.001$ ) and day 4 ( $P=0.007$ ), but no leak or intra-abdominal abscess occurred in either group.

**Conclusions:** CD patients experience increased post-operative pain, require more post-operative analgesia and have an enhanced post-operative inflammatory response. Further studies to elucidate the mechanism of this hyperalgesia and strategies to obviate it are required.

**Keywords:** Crohn's; cancer (CD); post-operative pain; patient-controlled analgesia (PCA); laparoscopic surgery

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