Extended Abstract

Multimodal perioperative pain protocol for gynecologic oncology laparotomy is associated with reduced hospital length of stay and improved patient pain scores

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Objectives

The primary objective was to evaluate the impact of a multimodal perioperative pain regimen on length of hospital stay for patients undergoing laparotomy with a gynecologic oncologist.

Methods

We compared 52 patients who underwent laparotomy with a gynecologic oncologist at a single institution between 2017-2018, after implementation of a multimodal perioperative pain regimen, to a historic cohort of 94 patients (2016-2017). The multimodal pain regimen included pre and postoperative administration of oral acetaminophen, gabapentin, and celecoxib, in addition to standard narcotics and optional epidural analgesia. Demographic, surgical, and post-operative data were collected.

Results

On multivariable analysis, bowel

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resection, stage, surgery length, age and cohort group were retained as significant independent predictors of length of stay. Patients undergoing laparotomy prior to the pain protocol had a length of stay 1.26 times longer than patients during the post-implementation period ($p<0.01$). For complex surgical patients, this translated into a reduction in length of hospital stay of 1.73 days. There was significant reduction in pain scale score on post-operative day zero from 5 to 3 ($p=0.02$) and a non-significant overall reduction of post-operative morphine equivalents, with similar adverse outcomes.

Conclusions

Implementation of a multimodal perioperative pain regimen in patients undergoing gynecologic oncology laparotomy was associated with a significant reduction of length of hospital stay and improved patient perceived pain, even in the absence of a complete Enhanced Recovery After Surgery (ERAS) protocol.

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