

Evidence-Based Anesthesia for Major Gynecologic Surgery



Jeanette R. Bauchat, MD^a,
Ashraf S. Habib, MBBCh, MSc, MHSc, FRCA^{b,*}

KEYWORDS

• Enhanced recovery • ERAS • Gynecologic surgery • Fast track

KEY POINTS

- Studies on enhanced recovery after major gynecologic surgery are limited but seem to have similar outcome benefits to populations who have had colorectal surgery.
- Effective regional anesthetic techniques used in gynecologic surgery include spinal anesthesia, epidural analgesia, transversus abdominis plane blocks, local anesthetic wound infusions, and intraperitoneal instillation catheters.
- Effective nonopioid analgesics known to reduce opioid consumption after gynecologic surgery include pregabalin, gabapentin, nonsteroidal antiinflammatory drugs, cyclooxygenase 2 inhibitors, and paracetamol.
- A multimodal antiemetic strategy to reduce the baseline risk of postoperative nausea and vomiting in conjunction with combination antiemetic therapy is imperative in this high-risk population.
- Randomized controlled trials of the ideal fluid management strategies in this surgical population are needed.

INTRODUCTION

The last 2 decades have seen significant changes in the surgical approach to gynecologic surgery. Minimally invasive surgeries have been more commonly performed and have been associated with comparable long-term outcomes compared with open surgery.¹ Although operative time is longer with minimally invasive surgery, hospital stay is significantly shorter, and analgesic and antiemetic needs are significantly reduced compared with open surgery.^{1,2} However, there has been little attention to optimizing other surgical and anesthetic elements of the perioperative care of these patients.

The authors have no conflicts of interest.

^a Northwestern University, Feinberg School of Medicine, 250 East Huron Street, F5-704, Chicago, IL 60611, USA; ^b Duke University Medical Center, Box 3094, Durham, NC 27710, USA

* Corresponding author.

E-mail address: ashraf.habib@duke.edu

Anesthesiology Clin 33 (2015) 173–207
<http://dx.doi.org/10.1016/j.anclin.2014.11.011>

anesthesiology.theclinics.com

1932-2275/15/\$ – see front matter © 2015 Elsevier Inc. All rights reserved.

The concepts and practices of enhanced recovery after surgery (ERAS) are well established for colorectal surgery but until recently have not been applied to gynecologic surgery. High-quality meta-analyses have shown the effectiveness of ERAS principles in reducing hospital length of stay and overall complications but not necessarily surgical complications.^{3,4} Studies that assess fast-tracking or enhanced recovery after major gynecologic surgery typically apply the ERAS guidelines derived from colorectal surgery, because there are no specific guidelines for enhanced recovery after major gynecologic surgery. In this article, major gynecologic surgery refers to the surgeries listed in **Box 1**.

Some general concepts of the ERAS protocol apply to all surgical patient populations (**Box 2**).⁵ The means by which individual components of the ERAS protocol are achieved may differ, depending on the patient population and type of surgery. For example, unlike colorectal surgery, gynecologic surgery patients are all women. It is well established that women differ significantly from men from a pharmacokinetic and pharmacodynamic standpoint, which may influence the optimal anesthetic drug choice and antiemetic or analgesic strategies in ERAS protocols for gynecologic surgery compared with colorectal surgeries.⁶

This article focuses on meta-analyses, randomized controlled trials (RCTs), and large prospective impact studies conducted in the gynecologic surgery population investigating aspects of the ERAS protocol over which anesthesiologists exercise the most influence. The best evidence is presented for 4 specific aspects of the ERAS protocol: anesthetic choice, nonopioid multimodal pain management, postoperative nausea and vomiting (PONV) prevention strategies, and fluid management. This article concludes with the general ERAS principles applied to this specific patient population, because anesthesiologists should be aware of all the ERAS interventions as we become leaders of the perioperative surgical home.

ENHANCED RECOVERY AFTER MAJOR GYNECOLOGIC SURGERY

The first descriptive study exploring ERAS principles in major gynecologic surgery was conducted 10 years ago.⁷ The benefits of implementation of ERAS principles in the gynecologic surgery population were explored in 1 RCT,⁸ but mostly in preintervention and postintervention studies. Studies assessing impact of ERAS protocol implementation on outcomes for major gynecologic surgeries are summarized in **Table 1**. All of those studies reported a reduction in the duration of hospital stay, in addition to other

Box 1

Major gynecologic surgeries included in this article

Laparotomy for malignant gynecologic cancers

Hysterectomy, lymphadenectomy, omentectomy

Complex cytoreductive surgery

Urogynecologic pelvic organ prolapse surgery

Total or partial abdominal hysterectomy

Vaginal hysterectomy

Abdominal myomectomy

Salpingo-oophorectomy

Ovarian cystectomy

Download English Version:

<https://daneshyari.com/en/article/2744317>

Download Persian Version:

<https://daneshyari.com/article/2744317>

[Daneshyari.com](https://daneshyari.com)