A Comparative Study on the Effectiveness of Enhanced Recovery after Surgery Protocol versus Conventional Management in Patients Undergoing Gynecological Surgeries

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Abstract- Background: Enhanced Recovery after Surgery (ERAS) protocols are evidence-based perioperative care pathways that reduce surgical stress and improve recovery. Limited evidence exists in gynecology. Objective: To compare the effectiveness of ERAS versus conventional perioperative management among patients undergoing gynecological surgeries. Methods: A prospective cohort study was conducted at Nalanda Medical College & Hospital, Patna, including 100 women divided into ERAS (n=50) and conventional (n=50) groups. Outcomes included hospital stay, postoperative pain, patient satisfaction, and recovery parameters. Results: ERAS significantly reduced hospital stay (3.94 vs. 5.10 days, $p < 0.001$), pain scores (3.00 vs. 3.60, $p = 0.001$), and improved satisfaction (7.12 vs. 6.36, $p < 0.001$). Mobilization and oral intake showed no significant differences but favored ERAS. No increase in complications was observed. Conclusion: ERAS enhances recovery, shortens hospital stay, and improves satisfaction in gynecological surgeries without added risk.

Keywords: ERAS, gynecological surgery, postoperative recovery, hospital stay, patient satisfaction.

I.INTRODUCTION

Conventional perioperative care in gynecology often involves prolonged fasting, delayed mobilization, and opioid-based analgesia, leading to delayed recovery and extended hospital stays. ERAS, introduced by Kehlet (1997), incorporates preoperative counseling, multimodal analgesia, early mobilization, and early feeding. While its benefits are well established in colorectal and urological surgeries, evidence in gynecology is still emerging. This study evaluates ERAS versus conventional care in gynecological surgeries.

II.MATERIALS AND METHODS

A prospective cohort study was conducted from April 2023 to March 2025 at NMCH, Patna. One hundred women undergoing elective gynecological surgeries were randomized into:

- ERAS Group (n=50): received perioperative care as per ERAS guidelines.
- Conventional Group (n=50): received standard care (overnight fasting, delayed oral intake, prolonged catheterization).

Primary outcomes: hospital stay, postoperative complications.
Secondary outcomes: pain scores (VAS), oral intake, ambulation, patient satisfaction.

Data were analyzed using t-test/Chi-square, with $p < 0.05$ as significant.

III.RESULTS

Table 1. Age Distribution

Group	Mean ± SD	p-value
ERAS	31.14 ± 4.91	0.711
Conventional	30.20 ± 5.10	

Interpretation: No significant age difference between groups.

Table 3. Pain and Satisfaction Scores

Parameter	ERAS (Mean ± SD)	Conventional (Mean ± SD)	p-value
Pain score (VAS)	3.00 ± 0.85	3.60 ± 0.88	0.001
Satisfaction score	7.12 ± 0.77	6.36 ± 0.77	<0.001

Interpretation: ERAS patients reported significantly lower pain and higher satisfaction.

Table 4. Duration of Hospital Stay

Group	Mean ± SD (days)	p-value
ERAS	3.94 ± 0.71	<0.001
Conventional	5.10 ± 0.64	

Interpretation: ERAS significantly reduced hospital stay.

IV.DISCUSSION

This study demonstrates that ERAS significantly improves recovery outcomes in gynecological surgeries. Hospital stay and pain scores were reduced, while satisfaction improved. These findings align with prior studies (Bahadur et al., 2021; Kilpiö et al., 2020), supporting ERAS as a safe and effective alternative to conventional care.

V.CONCLUSION

ERAS protocols shorten hospital stay, reduce postoperative pain, and enhance satisfaction in gynecological surgeries without added risk. Integration into standard perioperative practice is strongly recommended.

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