

Evaluation of postpartum depression in patients undergoing cesarean section managed with an ERAS protocol

Submission date 23/12/2025	Recruitment status No longer recruiting	☐ Prospectively registered
Registration date 29/12/2025	Overall study status Completed	☐ Protocol
Last Edited 29/12/2025	Condition category Pregnancy and Childbirth	☐ Statistical analysis plan
		☐ Results
		☐ Individual participant data
		☒ Record updated in last year

Plain English summary of protocol

Plain English summary of protocol not provided at registration.

Contact information

Type(s)

Principal investigator, Public, Scientific

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Additional identifiers

Study information

Scientific Title

Effect of ERAS protocol after cesarean section on postpartum depression: a randomized controlled trial

Study objectives

The Enhanced Recovery After Surgery (ERAS) protocol is an evidence-based, multidisciplinary approach that includes preoperative, perioperative, and postoperative interventions. These interventions aim to accelerate functional recovery and improve postoperative outcomes. The ERAS protocol seeks to minimize surgery-related complications and optimize the duration of recovery. By reducing preoperative fasting time, ensuring effective pain control, promoting early mobilization, and enabling early postoperative nutrition, ERAS attenuates surgery-induced catabolic and inflammatory responses. The ERAS protocol has been widely implemented across various surgical disciplines, including gynecologic oncology, benign gynecology, urology, and hepatobiliary surgery. Postpartum depression is reported to occur less frequently in populations undergoing normal vaginal delivery. In this study, we aimed to evaluate changes in postpartum depression questionnaire scores in patients who received the ERAS protocol after cesarean section compared with those who did not.

Ethics approval required

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Ethics approval(s)

Approved 10/03/2025, Düzce University Non-Interventional Health Research Ethics Committee (Konuralp, Düzce, 81620, Türkiye; +90 0850 800 81 81; duzceetik@duzce.edu.tr), ref: 2025/26

Primary study design

Interventional

Allocation

Randomized controlled trial

Masking

Open (masking not used)

Control

Active

Assignment

Parallel

Purpose

Health services research, Supportive care

Study type(s)

Health condition(s) or problem(s) studied

Evaluation of postpartum depression following ERAS implementation in patients undergoing cesarean section.

Interventions

Methods

Study Design

This study was designed as a prospective randomized controlled trial conducted in the Department of Obstetrics and Gynecology. The anticipated study duration is nine months.

Participants

Patients admitted to the Obstetrics and Gynecology clinic with an indication for cesarean section due to fetal or maternal reasons were eligible for inclusion. Only patients with a clear clinical indication for cesarean delivery were enrolled. No additional interventions beyond standard clinical care were performed.

Randomization

Eligible participants were randomly assigned to either the ERAS group or the control group using a computer-generated randomization program.

Interventions

Patients in the intervention group received postoperative care according to the Enhanced Recovery After Surgery (ERAS) protocol, while patients in the control group received standard postoperative care. No additional medications were initiated for study purposes. Preoperative, perioperative, and postoperative clinical data and pharmacological treatments were recorded for both groups.

Outcomes

Primary Outcomes

The primary outcomes were early postoperative recovery parameters, including:

Time to first postoperative flatus following cesarean delivery

Postoperative pain scores

Postoperative complications (wound complications, urinary retention, and postpartum hospital readmission)

Patient satisfaction

Secondary Outcomes

The secondary outcome was the assessment of postpartum anxiety and depression after discharge using the Edinburgh Postnatal Depression Scale (EPDS).

Outcome Measurements

Postpartum pain severity was assessed using the Visual Analog Scale (VAS), a 10-cm scale ranging from 0 (no pain) to 10 (severe pain). Patients were asked to rate their pain intensity, and scores were recorded.

Patient satisfaction was evaluated using a Likert scale (1 = poor, 5 = excellent).

VAS and satisfaction scores were collected by physicians during face-to-face ward visits.

Data Collection and Management

Patient identification data were not included in the study records. All collected data were stored in a computerized archive. After completion of data collection, outcomes were compared between the ERAS and control groups.

Ethical Considerations

No life-threatening risks were anticipated in this study. No procedures without clinical indication were performed, and no risk factors expected to harm participants were present. No additional medications were administered as part of the study.

Statistical Analysis

All study data will be analyzed using appropriate statistical methods.

Intervention Type

Other

Primary outcome(s)

1. Time to first postoperative flatus following cesarean delivery measured using postpartum pain scores and patient satisfaction scores at the time of cesarean delivery
2. Postpartum anxiety and depression after discharge measured using the Edinburgh Postnatal Depression Scale (EPDS) at the time of discharge

Key secondary outcome(s)**Completion date**

18/12/2025

Eligibility**Key inclusion criteria**

1. Patients with indications for cesarean section
2. 18-40 age pregnant woman
3. Without a prior diagnosis of psychiatric illness and without current or previous use of psychiatric medications

Healthy volunteers allowed

No

Age group

Adult

Lower age limit

18 Years

Upper age limit

40 Years

Sex

Female

Total final enrolment

150

Key exclusion criteria

1. Presence of preeclampsia or eclampsia
2. Pre-existing hypertension
3. Placental invasion anomalies
4. Placental abruption
5. Pregestational or gestational diabetes mellitus
6. Perioperative complications (including intraoperative bladder or bowel injury)
7. Orthopedic conditions that could limit postoperative mobilization

Date of first enrolment

01/04/2025

Date of final enrolment

08/12/2025

Locations

Countries of recruitment

Türkiye

Sponsor information

Organisation

Düzce Atatürk State Hospital

Funder(s)

Funder type

Funder Name

Investigator initiated and funded

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary

Data sharing statement to be made available at a later date