



Maternal and perinatal outcome of women underwent elective caesarean using ERAS pathways

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OBJECTIVES

To study the maternal and perinatal outcome of women underwent elective caesarean section using enhanced recovery after surgery (ERAS) pathways

DESIGN

Prospective Cohort study

METHODOLOGY

- This is secondary analysis of a quality improvement initiative which was done as pre-post study for the implementation of various ERAS care pathways
- Pregnant women undergoing elective caesarean deliveries under regional anaesthesia at JIPMER, Puducherry were included in the study
- The project team followed the PDSA (Plan – Do – Study – Act) quality initiative model to implement the 10-step ,ERAS-10 care pathways in caesarean section
- Total sample size of 550 was calculated overall and the number chosen for the secondary analysis was based on Day-2 discharge from hospital

RESULTS

Pre-implementation
group
N=48

Post-implementation
group
N=56

- Both the groups are well matched demographically
- ERAS helped in planned deliveries between 36–38 weeks (57.1% vs 31.1%; P = **0.031**)
- Risk factors were comparable between both the groups
- Mean hemoglobin levels were significantly higher in the post-implementation group (11.31 vs 10.79 gm/dL, P = **0.016**) ,due to robust pre-operative optimization
- Discharges on POD-2 increased dramatically from 10.4% to 41.1% (P = **0.001**) with ERAS implementation
- There were no readmissions after discharge

MATERNAL OUTCOMES

	Pre-ERAS	Post-ERAS	P-value
Catheter removal	POD-1	POD-0	<0.001
Ambulation	POD-1	POD-0	<0.001
Oral intake	6-7 hours	2 hours	<0.001
Analgesia use	None	All	<0.001

- The ERAS protocol significantly enhanced early recovery
- Core ERAS goals - early ambulation and feeding- successfully achieved

NEONATAL OUTCOMES

- Birth weight was comparable between both the groups (P = 0.407)
- APGAR scores were similar with all neonates scoring >7 in post-implementation group (97.9% vs. 100%)
- NICU admissions were low and not statistically different between both the groups

CONCLUSION

Implementing ERAS protocols in caesarean sections in a developing country with large volume centres like India is possible with good outcome in different pathways and less to no morbidity with the involvement of multiple stakeholders

REFERENCES:

- 1) Wilson RD, Caughey AB, Wood SL, Macones GA, Wrench IJ, Huang J, Norman M, Pettersson K, Fawcett WJ, Shalabi MM, Metcalfe A, Gramlich L, Nelson G. Guidelines for Antenatal and Preoperative care in Cesarean Delivery: Enhanced Recovery After Surgery Society Recommendations (Part 1). Am J Obstet Gynecol. 2018 Dec;219(6):523.e1-523.e15. doi: 10.1016/j.ajog.2018.09.015. Epub 2018 Sep 18. PMID: 30240657.
- 2) Caughey AB, Wood SL, Macones GA, Wrench IJ, Huang J, Norman M, Pettersson K, Fawcett WJ, Shalabi MM, Metcalfe A, Gramlich L. Guidelines for producing better functional outcomes and enhanced recovery following total hip and knee arthroplasty: an evidence-based review. BMC medicine. 2013 Dec;11(1):1-9 intraoperative care in cesarean delivery: enhanced recovery after surgery society recommendations (part 2). American journal of obstetrics and gynecology. 2018 Dec 1;219(6):533-44