The Effect of Early Post Cesarean Feeding on Women's Satisfaction

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Received April 2010; Revised and accepted June 2010

Abstract

Objective: Satisfaction and postoperative care of women who undergo cesarean secaon is an important aspect and demand due attention. Hunger and thirst are frequently encountered after cesarean delivery. These increase distressing symptom and unsatisfaction. The aim of this paper was to detect the effect of early post cesarean feeding on mothers' satisfaction.

Materials and methods: This study was a controlled trial. The research population was women delivering by cesarean section in Ommolbanin hospital, Mashhad, Iran. The samples consist of 82 women randomly assigned in two groups of study and control. The study group started oral fluids 4 hours after surgery, followed by regular diet after return of bowel sounds. The control group started oral fluids 12 hours after surgery and solid food was allowed after defecation. The groups were compared about satisfaction rate before discharge with VAS scale. Data were analyzed using chi-square, Fisher exact test, Kruskal walis test, t test and Mann Whitney.

Results: The mean of women's satisfaction was 96.2 in early feed group and 56.7 in the control group. There was a statistically significant difference between two groups (p=0.000).

Conclusion: This study showed that early feeding increases women's satisfaction. It is a safe, easy and enforceable intervention that can be usual in surgical units.

Keywords: early feeding, cesarean section, satisfaction

Introduction

Satisfaction is a complex and multidimensional psychological response to life events (1). Different factors affect patient's satisfaction. The secure of patient needs is a main factor to improve quality of medical services. Patient's opinion about quality of postoperative care is valuable for managers (2–4). Postoperative care and satisfaction of women who underwent a cesarean section is an important aspect and demands due attention (5), because they are different from other patients and don't have just the role of a patient. Actually they

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Mohadeseh Adeli E-mail: m_a_31661@yahoo.com are mothers that should care and breast feed their infant immediately after surgery. Some previous studies have shown early post cesarean feeding is a main factor in women's satisfaction.

Hydration and nutrition are two essential components of women's needs after cesarean delivery. Traditionally post operative hydration following cesarean section implied using 2–3L of intravenous fluids in the first 12–24h, providing for fluid loss during the surgery and the maintenance requirements. Oral intake is usually allowed after 24h in the absence of nausea and presence of detectable bowel activity. Regular diet is initiated after flatus is passed (5,6).

Hunger and thirst are frequently encountered after cesarean delivery. These increase distressing sympto-

ms and women's unsatisfaction. Benhamou et al have reported moderate or severe hunger and thirst were seen in a large portion of women at first surgical day (7). However today some researchers believe in low risk cesarean delivery, women can initiate oral fluid when they become conscious and tend to drink. Also they can receive regular diet earlier than traditional method (8). Furthermore several published experiences with early post cesarean feeding have been encouraging. The advantages include rapid return to a normal diet, early ambulation, reduced analgesic requirements, decreased sepsis, better wound healing (6), rapid return of bowel activity (8-10), rapid mobility and shorter hospital stay (8,10, 11) and improve body immunization system (12,13). So early post cesarean feeding can affect on women's satisfaction with these advantages and reduce of thirst and hunger.

There are a few papers about this problem and they have reported different results. So the aim of this paper was to detect: the effect of early post cesarean feeding on women's satisfaction.

Materials and methods

We conducted a prospective randomized controlled trial involving 82 women undergoing elective cesarean delivery under general anesthesia. Hospital ethics committee approval was obtained and all subjects gave prior written informed consent. As part of the informed consent process, women were advised that they had equal chances of being randomized into two groups. They were alternately allocated to two groups, 41 women in each. The inclusion criteria for randomization were prior education, singleton pregnancy with gestational age 38-42 weeks, elective cesarean after one previous cesarean, general anesthesia, transverse incision, stable vital signs and exclusion criteria were history of bowel surgery, fetal anomaly, maternal disease, intraoperative or immediate postoperative major complications, smoking and addiction.

Women allocated to early oral feeding began clear liquids 4h after surgery. Intravenous fluids stopped but they kept IV cannula for 12h. At first they drank 30ml diluted and sweet water or tea then if they could tolerated without nausea and vomiting and tended to drink they could drank more gradually. The women themselves determined the quantity of oral fluid intake and they were actively encouraged to increase their oral intake so as to ensure a minimum of 1500ml oral fluid intake in the first 24h. Solid food was allowed after detection of bowel sounds on auscultation. In the control group, women were kept on intravenous fluids for 12h, and then advanced to clear liquids when normal bowel sounds were detected. They progressed to a regular diet after first defecation.

Women in either group kept IV cannula and urinary catheter for 12h after surgery. Both groups were offered the same antibiotic and analgesic requirements (200 mg diclofenac suppository 1h and 8h after surgery. Then 500mg Acetaminophen 8 hourly for 48h and 1gr cefazolin immediately after clamp of cord).

The assessment of return of bowel activity was done by half hourly auscultation for appearance of bowel sounds and inquiries regarding passage of flatus and defecation. The main outcome was women satisfaction before discharge from hospital, measured using a VAS. A 100 mm long scale was used.

Participants were provided with a questionnaire containing the VAS which was presented with a statement explaining what was intended to measure. They were asked on a scale of 0–100, how satisfied were you with the beginning time of feeding after your surgery? (0 meaning not satisfied to 100 being most satisfied). The data was analyzed and values were examined by parametric and nonparametric tests.

Results

The mean age of women was 25.6 years, that 95.1% of them were housewife and 35.4% of them had secondary education. Most women had economical satisfaction (74.4%). 26.8% of women reported a previous abortion and 7.3% of them reported a previous dead fetus.

As shown in table 1, there was no significant difference between the groups with respect to the fertility information.

Table 2 shows various parameters evaluated to assess the preoperative and intraoperative information in the early fed and control groups.

There were no significant difference between groups in gestational age, gravity, parity, preoperative hospital stay, preoperative NPO, anesthesia length and surgery length.

The mean satisfaction \pm SD was 96.2 \pm 11.7 in the early feed group and 56.7 \pm 28.4 in the control group. The difference was statistically significant.

Discussion

We are aware that satisfaction is a complex and multidimensional psychological response to life events (1). Although there is no such thing as a single index of satisfaction, the approach used in this trial has been previously validated. Several studies have assessed sa-

	Early feed group (n=41)	Control group (n=41)	p*	
Planned pregnancy	26 (63.4%)	25 (61.0%)	0.820	
Satisfaction from infant sex	41 (100%)	40 (97.6%)	1.000	
Previous abortion	10 (24.4%)	12 (29.3%)	0.618	
Previous dead fetus	2 (4.9%)	0 (0%)	0.494	

Table 1. Some characteristics of pregnancy in two groups

* chi-square test

tisfaction using VAS (14–19). This study shows that the early post cesarean feeding increase women's satisfaction rates (p=0.000). Teoh et al randomized 196 women undergoing cesarean section under spinal anesthesia, to compare the incidence of ileus in early and late feeding groups.

As a secondary outcome, they measured maternal satisfaction. It's result, shown use of clear liquid 30 min after surgery increased satisfaction rates in the early feed group (90 versus 60 on VAS scale, p<0.001) (14). Benhamou et al reported that women in early feed group tolerated oral fluid 1h after cesarean section and their satisfaction was more than control group (p< 0.05) (7).

Sekhavat et al compared satisfaction rates in early and control groups. It's results shown use of clear liquid 2h than 12h after cesarean section increased satisfaction rates in the early feed group (p<0.05) (15). Results of these studies were similar our study but Izbizky et al reported a different result. It's results showed, use of regular diet within 8h after cesarean section didn't increase satisfaction rates in early feed group (p=0.12) and satisfaction rates was similar in both group (16). Probably different method is a reason for this differrence in our result and its result because we believe, most of mothers prefer liquid diet more than regular diet at first hours after cesarean section but Izbizky hasn't paid attention to this point. Our study, shows early cesarean section feeding increase women's satisfaction rates. Increase in the mothers satisfaction encourages them to do medical orders correctly and speed up threatment. Mothers can commit a good memory about surgery and hospital stay to their mind when they leave hospital, so early feeding is a safe, easy and enforceable intervenetion that can be routine in surgical units and increase quality of post cesarean care and women's satisfaction.

Reference

- Pascoe GC. Patient satisfaction in primary health care. A literature review and analysis. Eval program plan 1983; 6: 185–210.
- Houk CS, Brede CB, Anand KJS. Pediatric pin management. In: Gergory GA, editor. Pediatric Anesthesia. Weinstein MS, Nicolas SC, schreinmer MS. A single dose of Morphine increases The incidence of vomiting. Anesthesiology 1994; 81: 579.
- Zhou Y, Fargang FA, Zhang Y. Quality assurance for interventional pain management procedure. Pain. Physicion. 2006; 9: 107–14.
- Amison RN, Ross MJ, Hoopman P, Griffin F, Lery J, Daly M, et al. Assessment of postoperative pain management patient satisfaction and pexceived helpfacness. Clin J Pain 1997; 13: 299–36.
- 5. Nidhi Malhotra, Sanjivni K, Shikha P, Meenakshi J,

Mean ± SD	Early feed group (n=41)	Control group (n=41)	р
Gestational age at delivery (week)	39.0 ± 0.8	39.3 ± 1.0	0.189*
Gravity	2.3 ± 0.6	2.4 ± 0.6	0.822**
Parity	2.0 ± 0.0	2.1 ± 0.3	0.079**
Preoperative hospital stay (hour)	12.9 ± 1.5	13.3 ± 1.5	0.193**
Preoperative NPO (hour)	11.3 ± 1.3	11.9 ± 1.1	0.054**
Anesthesia length (minute)	59.8 ± 1.1	59.8 ± 1.1	1.000**
Surgery length (minute)	49.63 ± 2.6	48.78 ± 2.7	0.146**

Table 2. Comparison of preoperative and intraoperative information

* t-test ** Mann-Whitney test

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Radhika B, Agrwala. Early oral hydration and its impact on bowel activity after elective caesarean section–our experience. European journal of obstetrics & Gynecology and reproductive biology 2005; 120: 53–56.

- Horowitz IR. Postanaesthesia and postoperative care. In: Thompson JD, Rock JA, editors. Telindes operative gynecology. 8th ed. Philadelphia: JB Lippincott-Raven; 1997: 142.
- Benhamou D, Técsy M, Parry N, Mercier FJ, Burg C. Audit of an early feeding program after cesarean delivery: patient wellbeing is increased. Can J anesth 2002; 49: 814–819.
- Shamaeyan Razavi N. The effect of post cesarean early oral fluid on postoperative gasterointestioneal compliments. Thesis for Master of Science degree in midwifery Mashhad university 1381 (Persian).
- Abd Rabbo S. Early oral hydration: a novel regimen for management after elective cesarean section. J Obstet Gynaecol 1995; 21: 563–7.
- Patolia DS. Hilliard RL, Toy EC, Bker B. Early feeding after cesarean: randomized trial. Obstet Gynecol 2001; 98: 113–6.
- Weinstein L, Dyne PL, Durbeck NB. The PROEF diet–a new postoperative regimen for early feeding. AM J Obstet Gynecol 1993; 168: 128–31.
- 12. Windsor J, Knight G, Hill F. Wound healing response in surgical patients: recent food intake is more important than nutritional status. Br J Surge 1998; 75: 135–7.

- Delany HM, Demetriou AA, Teh E, Levenson SM. Effects of early postoperative nutritional support on skin wound and colon anastomosis healing. Journal of parenteral and enteral nutrition 1990; 14: 357–61.
- Teoh WH, Shah MK, Mah CL.A randomized controlled trial on beneficial effects of early feeding post–caesarean delivery under regional anesthesia. Singapore Med J 2007: 48: 152–7.
- Sekhavat, Karimi M, Tabatabayi A.The effect of early post cesarean feeding on gasterointestioneal compliments and satisfaction. Babol Medical University Journal 1387; 10: 67–72 (Persian).
- Izbizky GH, Mining L, Sebastiani MA, Otano L.The effect of early versus delayed post cesarean feeding on women's satisfaction: a randomized controlled trial. JOG 2008; 115: 332–8.
- Charoenkwan K, Palapinyo C. Early solid food after cesarean section and postoperative ileus. Int J Gynaecol Obstet 2005; 90: 144–5.
- Swart M, Sewell J, Thomas D. Intrathecal morphine for cesarean section:an assessment of pain relief, satisfaction and side effects. Anasthesia 1997; 52: 373–7.
- 19. Murphy JD. Henderson K, Bowden MI, Lewis M, Cooper GM.Bupivacaine versus bupivacaine and fentanyl for epidural analgesia: Effect on maternal satisfaction. BMJ 1991; 302: 564–7.