



Early Oral Feeding After Cesarean Section – A Clinical Analysis

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ABSTRACT

Objectives – Evaluation of impact of early oral feeding after cesarean section.

Materials & methods – Early feeding group (n=100) was offered oral water 6 hours after cesarean section, and then other liquid was allowed from 10-12 hours. Soft diet was started from 18-24 hours and next meal was normal diet. Control group (n=100) mother was nil orally in first 24 hours and oral water was started in 24-48 hours depending on auscultation of peristaltic sound, followed by liquid and soft diet. Normal diet was started from 3rd postoperative day. Bowel disturbances e.g. appearance of peristaltic sound, passage of flatus, passing of stool, paralytic ileus etc. were evaluated.

Result - In study group peristaltic sounds were heard by 12-14 hours; mean 13 hours (control group 30-36 hours; mean 33.2 hours) $p < 0.01$; flatus was passed by 36-40 hours; mean 37.9 hours (control group 52-56 hours; mean 54.1 hours) $p < 0.01$; stool passed by 56-60 hours; mean 57.8 hours (control group 72-75 hours; mean 73.6 hours) $p < 0.01$. No significant difference in paralytic ileus symptoms.

Conclusion – Early feeding following cesarean section does quicker return of bowel function without jeopardizing the gastro-intestinal system.

Key words: bowel function, flatus, paralytic ileus, peristaltic sound

INTRODUCTION

Post operative care after cesarean section is changing day by day. Nowadays it is a concern of discharging the mother early from the hospital. This is more applicable in busy govt. hospital where there is always crisis for post operative beds. Earlier, one patient goes home, the next

patient can be offered that bed. From that angle, first thing is early conversion of mother from intravenous (IV) fluids to oral food. And first thing of oral conversion is tolerance to oral water consumption. Restarting of oral feeding 6 hours after cesarean section enables a 4 hour decrease in the time before which flatus is passed and a 5-fold

decrease in gastrointestinal problems.⁽¹⁾ Cochrane database review concluded from the limited randomized trials reviewed, that there is no evidence to justify a policy of withholding oral fluids after uncomplicated caesarean section but further research is needed.⁽²⁾ Hence the present study aims at evaluating the post cesarean mother regarding early conversion to oral liquids.

MATERIALS & METHODS

Two hundred elective cesarean section mothers were evaluated. These all were primipara without any surgical, obstetrical & medical complication. Cesarean sections were done under spinal anesthesia. Exclusion criteria were general anesthesia, magnesium sulfate therapy, prolonged surgery (proper operative time more than 45 minutes,⁽³⁾ excluding anesthesia time), intra-operative bowel injury or other conditions which precluded early oral feeding. They were divided in two groups. One group (n=100) was study group where the mother was offered oral water 6 hours after cesarean section, and then other liquid was allowed at 10-12 hours. Soft diet was started from 18-24 hours and next meal was normal diet. Other group was control group (n=100) where mother was nil orally in first 24 hours and oral water was started in 24-48 hours depending on auscultation of peristaltic sound, followed by liquid and soft diet. Normal diet was started from 3rd postoperative day. If one patient was enrolled for study group, then the next patient was enrolled for control group. Informed consent was obtained. The mother was evaluated for any bowel disturbance e.g. appearance of peristaltic sound, passage of flatus, passing of stool, paralytic ileus etc. Student 't' test was applied for statistical calculation.

RESULTS

Patients were in between 20-30 years in both the groups. In study group peristaltic sounds were heard by 12-14 hours; mean 13 hours (control group 30-36 hours; mean 33.2 hours) $p < 0.01$;

flatus was passed by 36-40 hours; mean 37.9 hours (control group 52-56 hours; mean 54.1 hours) $p < 0.01$; stool passed by 56-60 hours; mean 57.8 hours (control group 72-75 hours; mean 73.6 hours) $p < 0.01$. Intravenous fluid requirement during postoperative period was 4-5 bottles in study group and 7-8 bottles for control group (500 ml bottle). No significant difference in mild paralytic ileus symptoms.

DISCUSSION

Early conversion to oral diet gives a faster sense of wellbeing to the post cesarean mother. The early feeding group was advised to have sips of water within 6-8 hours of cesarean section, thereafter oral soup or milk (150 ml) or tea 100ml within 8-12 hours under supervision. The routine group was not offered anything in first 24 hours, thereafter orals sips of water was allowed 24-48 hours post operative.^(4,5) In another study early-fed mother was given a liquid diet within 8 hours after cesarean section, advanced to a soft diet on next meal and then a regular diet. Conventional-fed mother was nil orally in first 24 hours after cesarean, advanced to liquid diet on 1st postoperative day, and soft diet on 2nd postoperative day.⁽⁶⁾ In present study, study group mother was offered oral water 6 hours after cesarean section, other liquid from 10-12 hours, soft diet from 18-24 hours and then normal diet. Early-fed women whose operations exceed 40 minutes may be more likely to have mild ileus symptoms.⁽⁷⁾ In defining the time needed for different steps of Caesarean section it was found that preparation for anesthesia/analgesia need 23 min (range 8-41). The proper time of the operation is 44.3 min.⁽³⁾ That's why operation time (skin-to-skin) when exceeded 45 minutes was not included in this study.

The early feeding group had significantly shorter time interval to bowel movement (16.7 hours versus 25.3 hours, $p < 0.001$).⁽⁶⁾ In compare to the control group, early feeding group had a shorter mean post-operative time interval to bowel sounds 18.90 +/- 4.17 h versus 36.21 +/- 3.52 h ($p <$

0.001), passage of flatus 44.81 +/- 3.73 h versus 60.58 +/- 4.40 h ($p < 0.001$) and bowel movement 58.30 +/- 5.91 h versus 72.76 +/- 4.25 h ($p < 0.001$).⁽⁵⁾ Another study also shows that early feeding group had more rapid return of their bowel function with significant more shorter mean post operative time intervals to bowels sounds (24.2 hours versus 34.2 hours), passage of flatus (51.6 hours versus 62.1 hours) and bowel movement (67.8 hours versus 75.8 hours) in compare to control.⁽⁴⁾ In a meta-analysis it was found that early oral feeding was significantly associated with the shorter time to return of bowel motility compared with delayed oral feeding (-7.3 hours for passage of flatus; -6.27 hours for bowel movement; -8.75 hours for bowel sounds).⁽⁸⁾ Another meta-analysis also found that early oral feeding promoted a quicker return of bowel sounds, flatus, bowel movement, and regular diet ($P < 0.001$ for all).⁽⁹⁾ In present study, early feeding group's peristaltic sounds were heard by 12-14 hours; mean 13 hours (control group 30-36 hours; mean 33.2 hours), flatus was passed by 36-40 hours; mean 37.9 hours (control group 52-56 hours; mean 54.1 hours), and stool passed by 56-60 hours; mean 57.8 hours (control group 72-75 hours; mean 73.6 hours).

Though the study is small, but results are promising which inspire us to get out of the conventional approach of feeding and go for bigger study with early feeding.

CONCLUSION

Early oral feeding of the mother after cesarean section results in quicker return of bowel function without increasing gastro-intestinal complication.

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