ISSN: 2091-2749 (Print)
2091-2757 (Online)

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Postpartum quality of life after normal vaginal delivery and caesarean section

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ABSTRACT

Introductions: Caesarean section is rising. The best method of delivery, vaginal or caesarean, for postpartum quality of life in women is a matter of controversy both from professionals' perspectives and from women's experience of childbirth. This study analyses quality of life after these two methods of deliveries.

Methods: This was a cross-sectional comparative study in postnatal care outpatient department at Patan hospital. Primipara women with normal delivery and elective caesarean section done in Patan Hospital were enrolled to analyse postpartum quality of life. The SF-12 questionnaire tool at 6 weeks post delivery was used to compare age, ethnicity, education, family type and employment. Data was analysed using ANOVA test for descriptive parameters.

Results: There were 468 primipara, age 30-45 y, 94% in 15-30 y, 77.8% educated, 74.4% in joint family, 73.5% housewife. Normal vaginal delivery was 360 (72.6%) and 128 (27.4%) elective caesarean. Vaginal delivery group had average SF score of Physical Health Composite Score of 68.7, Mental Health Composite Score 69.5 and total SF score 67.7. While in Caesarean group it was 64.8, 64.1 and 63.4

Conclusions: Normal vaginal delivery had better quality of life resulting in both superior physical as well as mental health.

Keywords: caesarean section, postpartum, quality of life, vaginal delivery

INTRODUCTIONS

Pregnancy and childbirth are complex events mixed with physical and psychological incidents as well profound biological, social and emotional transition.[1] There has been increasing trend of caesarean delivery even without any indication,like patient's request.[2] Many literature claim normal vaginal delivery have superiority on physical health while on other side caesarean delivery is supported with advantage of good mental health.[3] In context to Nepal patients becoming more demanding and searching for options, this study will provide information for evidence-based practice and assist the women for informed decision making.

METHODS

This study was a cross-sectional comparative study done in a postnatal care outpatient department (OPD) of Patan Hospital. Primipara women with Normal Delivery and Elective Caesarean Section done in Patan Hospital during 3 months period from January 2012 to March 2012 were included in the study. Approval was obtained from the Institutional review board of Institute of medicine, TUTH, Kathmandu, Nepal. Written informed consent was taken from all research participants.

Inclusion criteria were: age between 15 to 45 by the time of delivery; primipara; maximum of one abortion in the medical history; receiving prenatal care; routine discharge from hospital. Exclusion criteria were: instrumental and complicated delivery; emergency caesarean section; having diseased or handicapped child; still birth; giving birth to the child with a weight of less than 2500 g; history of disabilities, depression, drug intake, major psychological problem; stress-inducing experiences such as lose of a family member, divorce or family problems; medical problems such as low back pain, chronic constipation, urination problems, and breast problems before pregnancy.

The sample size was calculated as n1=338 for normal delivery and n2=102 for caesarean section using formula $n=z^2pq/d^2$. Postpartum women who fulfilledinclusion criteria and visited postnatal OPD of Patan Hospital at 6 weeks following delivery were interviewed with a self-assessment questionnaire SF-12 printed in both English and translated Nepali. The questionnaires were filled by the participants themselves. In case of illiterate participants, researcher provided assistance by reading out only, without any manipulation in choosing the answers. Normal delivery was defined as non-instrumental vaginal delivery and the type of Caesarean section included only elective caesareans. Quality of lifewass defined as the measurement of the impact made by Physical functioning; Role physical; Bodily pain; Vitality (energy and fatigue); General health perceptions; Mental health; Social functioning; Role emotional.

The SF-12is well known and validated generic health related quality of life questionnaire tool which is a multipurpose short form survey with 12 questions. The questions were combined, scored and weighted to create two scales that provide glimpses into postpartum mental and physical functioning and overall health related quality of life. It taps eight health related concepts.[4] Physical Health Composite Scores (PCS) and Mental Health Composite Scores (MCS) were computed using the scores of twelve questions and range from 0 to 100, where a zero score indicates the lowest level of health measured by the scales and 100 indicates the highest. The 12 questionnaire of SF 12 are grouped in such a way that a six numbers of questions (1,2,3,4,5&8) aggregated score gives PCS and the other six (6,7,9,10,11&12) gives MCS. Data were analyzed with Statistical Program for Social Science (SPSS). Parametric data was expressed as means +/- standard deviation (mean +/- SD) and analyzed using ANOVA test for descriptive parameters. P value of less than 0.05 was considered as significant.

RESULTS

In this study 468 cases were included out of which 360 (72.6%) were normal delivery and 128 (27.4%) were elective Caesarean delivery. Out of total, 440 (94%) were in the group 15-

30yrs and rest 28 (6%) were in the group 30-45yrs age. Ethnicity were; 232 (49.6%) Adhivasi/Janajati, 224 (47.9%) in Caste group while 12 (2.6%) were others group, (Table 1). There were 364 (77.8%) with schooling above SLC (grade 10), (Table 2); 348 (74.4%) fromjoint family, (Table 3) and 344 (73.5%) housewife (Table 4).

In two methods of delivery, the PCSwas 68.750, MCS 69.510 and SF 67.720 in normal delivery and while in caesarean it was 64.844, 64.192 and 63.487 respectively, (Table 5). In different age groups,the 15-30 years with normal delivery hadPCS of 69.213, MCS of 69.547 and SF mean score of 68.033, while with caesarean delivery it was 64.224, 63.505 and 62.872 respectively. Similarly in age group 30-45 years with normal delivery the scores were 59.375, 68.752 and 61.450 while with caesarean delivery was 70.833, 70.833 and 69.433 respectively.

Table 1. Analysis of SF mean score, PCS, and MCS with ethnicity in normal and caesarean delivery

Type of delivery	Ethnicity	SF Mean Score	Physical Health Composite score (PCS)	Mental Health Composite Score (MCS)
Normal	Caste	69.290	70.032	71.688
	Adhivashi/ Janajati	66.184	67.442	67.539
	Others	69.433	70.833	69.447
Caesarean	Caste	62.265	63.971	62.254
	Adhivashi/ Janajati	64.873	65.833	66.389
	Others	-	-	-

Table 2. Analysis of SF mean score, PCS, MCS with education in normal and caesarean delivery

Delivery	Education	SF Mean	PCS	MCS
Normal	Illiterate	75.000	83.333	70.830
	Below SLC	67.939	66.319	70.139
	Above SLC	67.322	68.750	69.271
Caesarean	Illiterate	63.933	72.917	62.500
	Below SLC	78.150	87.500	72.920
	Above SLC	62.352	62.269	63.734

Table 3. Analysis of SF mean score, with family type in normal and caesarean delivery

Delivery	Family	SF Mean	PCS	MCS
Normal	Nuclear	67.300	69.022	68.478
	Joint	67.881	68.649	69.893
Caesarean	Nuclear	57.443	55.357	59.523
	Joint	65.180	67.500	65.500

Table 4. Analysis of SF mean score, PCS, MCS with employment in normal and caesarean delivery

Delivery	Employment	SF Mean	PCS	MCS
Normal	Employee	64.486	64.286	68.254
	Housewife	68.786	70.215	69.922
Caesarean	Employee	58.760	59.375	60.833
	Housewife	65.636	67.330	65.719

Table 5. Comparison between Normal delivery and Caesarean section with respect to PCS, MCS and SF score

SF Score	Normal Delivery	Caesarean Section	p Value
PCS	68.750	64.844	0.24
MCS	69.510	64.192	0.02
Total SF Score	67.724	63.487	0.04

DISCUSSIONS

Overall analysis in the study shows that normal delivery group had better quality of life in both physical and mental health aspect compared to caesarean delivery, similar to the study by Torkan et al in Iran in 2009.[6] In another study Nikpour et al in 2011 comparing postpartum

quality of life at 8 weeks in between the two group, showed better scores after normal delivery.[7] The study done in Brazil to obtain opinions of Brazilian women regarding vaginal delivery and caesarean sections found vaginal delivery to be better, considering postpartum period of pain, similar to current study.[8] On contrary, study done by Lee et al by comparing postpartum quality of life in between the two group on sleep and fatigue shows better in caesarean delivered during early period.[9] On the other hand Huang et al in study done in rural China shows that mode of delivery did not affect postpartum quality of life rather socio-cultural determinants were more influential.[10]

This study shows normal delivery had better quality of life regardless of Ethnicity, Education, Family type, and Employment background in younger age group 15-30yrs.

During the period of research it was found that cause of elective caesarean section suspected CPD. Many of studies have shown that going for the short trial of labour does reduce the incidence of caesarean section.[11]

In light of better quality of life following normal delivery caesarean section should be reserved for real medical indication because the procedure itself carries risk of life threatening complications as shown by Souza et al in a multi country global WHO survey done in 2010.[12]

CONCLUSIONS

The findings suggest that normal vaginal delivery might lead to a better quality of life resulting in superior mental health. Indeed in the absence of medical indications normal vaginal delivery might be better to be considered as the first priority in term pregnancy. Larger study is needed to verify benefit of physical health in normal vaginal delivery versus caesarean section.

ACKNOWLEDGEMENT

I am thankful to Dr Ashis Shrestha, Patan Academy of Health Sciences for his guidance in statistical analysis.

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