

ORIGINAL ARTICLE

Assessment of vaginal delivery after C-section delivery: an observational study

Sunita Sanjay Padalkar

Assistant professor, Department of Obstetrics and Gynaecology, Institute of Medical Sciences & Research, Mayani, Maharashtra

ABSTRACT

Background: Pregnancy is a physiological phenomenon, and its end is associated with pain, fear, anxiety, and even fear of death for mothers. Vaginal birth after caesarean section (VBAC) is the term applied to women who undergo vaginal delivery following caesarean delivery in a prior pregnancy. Hence; the present study was undertaken for assessing vaginal delivery after c-section delivery. **Materials & methods:** A total of 50 subjects were enrolled in the present study. Only those subjects were included in which positive history of c section was present. Complete demographic details of all the patients were obtained. Complete clinical examination was done. All the deliveries were carried under then hands of skilled and experienced gynecologists. Complications, if any, were recorded separately. All the results were recorded and were analysed by SPSS software. Chi- square test was used for assessment of level of significance. **Results:** Mode of delivery following trial of vaginal birth after Caesarean section was spontaneous vaginal in 82 percent of the cases, while it was repeat lower segment c section in 8 percent of the cases. Vaginal instrumental delivery occurred in 10 percent of the cases. The overall incidence of vaginal birth complications after C section was 9.76 percent. Postpartum haemorrhage occurred in 2 patients while uterine atony and Febrilis puerperialis occurred in 1 patient each. **Conclusion:** From the above results, the authors concluded that patients with positive history of previous c section can be safely delivered through vaginal route.

Key words: Premature, Rupture, Membrane.

Corresponding author: Dr. Sunita Sanjay Padalkar, Assistant professor, Department of Obstetrics and Gynaecology, Institute of Medical Sciences & Research, Mayani, Maharashtra, India

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INTRODUCTION

Pregnancy is a physiological phenomenon, and its end is associated with pain, fear, anxiety, and even fear of death for mothers. Child delivery is a multi-dimensional process with physical, emotional, social, physiological, cultural, and psychological dimensions. Childbirth can be a critical and sometimes painful experience for women.¹⁻³ The old postulate: "Once cesarea, always caesarean" leads to repeated caesarean sections in women who have had previous cesarian section, so are more frequent cases with 2 and 3 caesarean sections. There are many studies about natural birth after previous caesarean section. Women after giving birth by caesarean section are more reluctant for a new pregnancy-birth.⁴

Vaginal birth after caesarean section (VBAC) is the term applied to women who undergo vaginal delivery following caesarean delivery in a prior pregnancy. Patients desiring VBAC delivery undergo a trial of labor (TOL) or trial of labor after caesarean section (TOLAC). While TOL is an acceptable, generally safe practice, serious, potential complications include uterine rupture or dehiscence with associated maternal and/or neonatal morbidity. Providers caring for patients with prior caesarean section need to be aware of and able to counsel patients regarding risks and benefits of attempting TOL, factors which affect the likelihood of successful vaginal delivery, and

knowledgeable regarding intrapartum management of patients undergoing TOLAC.⁵⁻⁷ Hence; the present study was undertaken for assessing vaginal delivery after c-section delivery.

MATERIALS & METHODS

The present study was commenced in the obstetrics and gynecology of the medical institute and it included assessment of vaginal delivery after c-section delivery. Ethical approval was obtained from institutional ethical committee and written consent was obtained from all the patients after explaining in detail the entire research protocol. A total of 50 subjects were enrolled in the present study. Only those subjects were included in which positive history of c section was present. Exclusion criteria included:

- Subjects with history of any systemic illness,
- Subjects with history of any malignant neoplasm,
- Subjects who didn't gave informed consent

Complete demographic details of all the patients were obtained. Complete clinical examination was done. All the deliveries were carried under then hands of skilled and experienced gynecologists. Complications, if any, were recorded separately. All the results were recorded and were analysed by SPSS software. Chi-

square test was used for assessment of level of significance.

RESULTS

In the present study, a total of 50 patients were enrolled. All the patients had previous history of C section. Mode of delivery following trial of vaginal birth after Caesarean section was spontaneous vaginal in 82 percent of the cases, while it was repeat lower segment c section in 8 percent of the cases. Vaginal instrumental delivery occurred in 10 percent of the cases.

In the present study, the overall incidence of vaginal birth complications after C section was 9.76 percent. Postpartum haemorrhage occurred in 2 patients while Uterine atony and Febrilis puerperialis occurred in 1 patient each.

DISCUSSION

Vaginal birth after caesarean section (VBAC) is one of the strategies developed to control the rising rate of caesarean sections (CSs). It is a trial of vaginal delivery in selected cases of a previous CS in a well-equipped hospital. In 1916, Cragin popularized the dictum, “once a caesarean section, always a caesarean section”. That was the era of the classical CS. In the present era of lower segment caesarean section (LSCS), caesarean -related morbidity and mortality are significantly reduced. The dictum now is “once a caesarean section, always an institutional delivery in a well-equipped hospital”. The reasons which led to the reversal of the old dictum are based upon the newer concepts of the assessment of scar integrity, fetal well-being, and improved facilities of emergency CS.⁵⁻⁸

Women with repeat caesarean sections (CSs) are at higher risks of bladder, bowel injuries, blood transfusion, and hysterectomies.

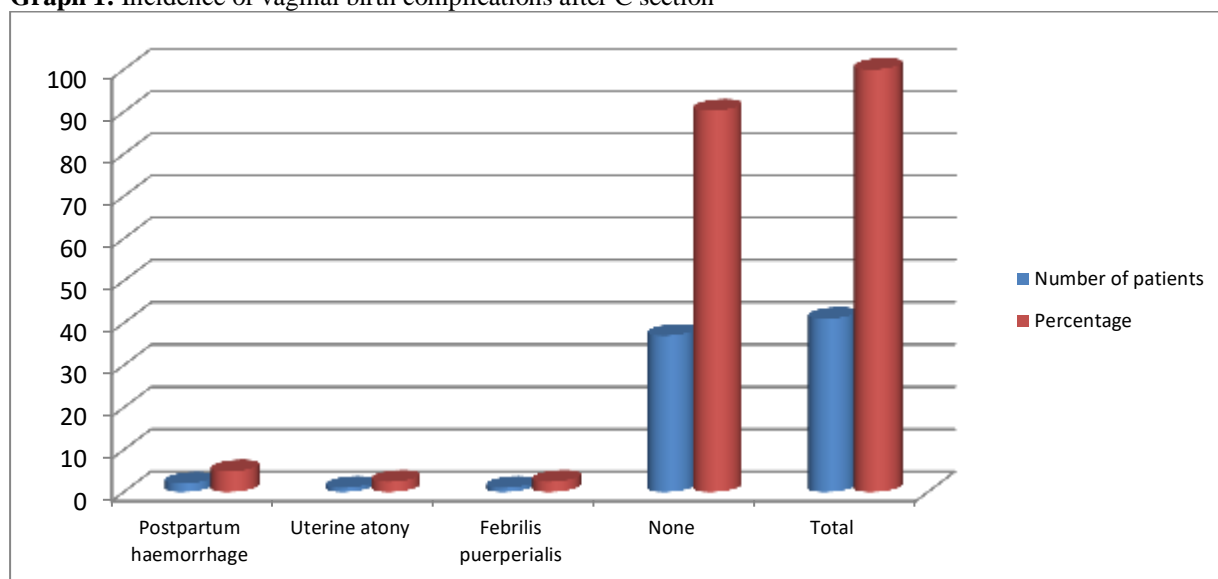
Table 1: Mode of delivery following trial of vaginal birth after Caesarean section

Mode of delivery	Number of patients	Percentage of patients
Spontaneous vaginal	41	82
Repeat lower segment c section	4	8
Vaginal instrumental	5	10
Total	50	100

Table 2: Incidence of vaginal birth complications after C section

Complications	Number of patients	Percentage
Postpartum haemorrhage	2	4.88
Uterine atony	1	2.44
Febrilis puerperialis	1	2.44
None	37	90.24
Total	41	100

Graph 1: Incidence of vaginal birth complications after C section



A survey conducted by the World Health Organization (WHO) found that women with previous one CS and singleton pregnancy are the main contributors to overall caesarean delivery rates. A meta-analysis conducted by Ellen and Eileen found that vaginal birth after caesarean section (VBAC) may result in small increase in uterine rupture and fetal mortality rates compared with elective repeat CS, while the successful VBAC may reduce the febrile morbidity, blood transfusion, and hysterectomy rates.⁹⁻¹² Hence; the present study was undertaken for assessing normal delivery after c-section delivery.

In the present study, a total of 50 patients were enrolled. All the patients had previous history of C section. Mode of delivery following trial of vaginal birth after Caesarean section was spontaneous vaginal in 82 percent of the cases, while it was repeat lower segment c section in 8 percent of the cases. Vaginal instrumental delivery occurred in 10 percent of the cases. Bangal et al conducted a study to assess the safety and success rate of vaginal birth after CS (VBAC) in selected cases of one previous lower segment CS (LSCS). One hundred pregnant women with a history of one previous LSCS were enrolled in the study. Results showed that, 85% cases had a successful VBAC and 15% underwent a repeat emergency LSCS for failed trial of vaginal delivery. Cervical dilatation of more than 3 cm at the time of admission was a significant factor in favor of a successful VBAC. Birth weight of more than 3,000 g was associated with a lower success rate of VBAC. The incidence of scar dehiscence was 2% in the present study. There was no maternal or neonatal mortality. They concluded that trial of VBAC in selected cases has great importance in the present era of the rising rate of primary CS especially in rural areas.¹³ In the present study, the overall incidence of vaginal birth complications after C section was 9.76 percent. Postpartum haemorrhage occurred in 2 patients while Uterine atony and Febrilis puerperialis occurred in 1 patient each. El-Ardat MA et al assessed the frequency of Vaginal Birth After Caesarean Section at Clinic of Gynecology and Obstetrics. During the 2012 percentage of Caesarean sections was 35 %, which represents a true pandemic in obstetrics profession and all scientific postulates are threatened by these practices. Of the total number of vaginal births only 48 deliveries were after previous caesarean section. Of the total number of subjects in which the delivery is completed vaginally after a previous caesarean delivery in 5 (10.42 %) was used vacuum extraction, forceps was not used, while manual exploration of the uterus in order to check the condition of the scar of a previous caesarean section was performed in 32 (66.67%) cases. The largest number of respondents who were surveyed were at age from 31 – 35 years (n=25), followed by group between 26-30 years (39.58%). The analysis of complications of vaginal birth after Caesarean delivery revealed that 93.75 % of the patients did not

have any complications, at 4.17 % occurred postpartum hemorrhage and in one patient febrile condition. Birth after caesarean delivery can be successfully completed vaginally, with a careful application of prostaglandins, with a good estimate of an experienced obstetrician, and adequate conditions to complete delivery by caesarean section if a vaginal birth is not going in the right direction and as planned.¹⁴

CONCLUSION

From the above results, the authors concluded that patients with positive history of previous c section can be safely delivered through vaginal route. However; further studies are recommended.

REFERENCES

1. Mikulandra F. Porod poslije carskog reza. *Ginaecol Perinatol.* 2004;13(3):121–124.
2. Ecker JL. Once a pregnancy, always a caesarean ? Rationale and feasibility of a randomized controlled trial. *American J Obs Gynecol* 2004;190(2):314–318.
3. Kulas T, Bursac D, Zegarac Z, Planinic-Rados G, Hrgovic Z. New Views on Caesarean Section, its Possible Complications and Long-Term Consequences for Children's Health. *Med Arh.* 2013 Dec;67(6):460–463.
4. Stotland NE, Lipschitz LS, Caughey AB. Delivery strategies for women with a previous classic caesarean delivery: A decision analysis. *American Journal of Obstetrics and Gynecology.* 2002;187(5):1203–1208.
5. Pickrell K. An inquiry into the history of caesarean section. *Bull Soc Med Hist (Chicago)* 1935;4:414.
6. Cragin EB. Conservatism in Obstetrics. *N Y Med J.* 1916;104:1–3.
7. Rozenberg P, Goffinet F, Phillippe HJ, Nisand I. Ultrasonographic measurement of lower uterine segment to assess risk of defects of scarred uterus. *Lancet.* 1996;347:281–4.
8. Kerr JM. The technique of caesarean section with special reference to the lower uterine segment incision. *Am J Obstet Gynecol.* 1926;12:729
9. Gordon GC. Delivery after caesarean section. In: Studd J, Tan SL, Chervenak FA, editors. *Progress in Obstetrics and Gynaecology.* Edinburgh: Elsevier; 2006. pp. 245–63.
10. Paré E, Quiñones JN, Macones GA. Vaginal birth after caesarean section versus elective repeat caesarean section: Assessment of maternal downstream health outcomes. *BJOG.* 2006;113:75–85.
11. Betran AP, Gulmezoglu AM, Robson M, Merialdi M, Souza JP, Wojdyla D, et al. WHO global survey on maternal and perinatal health in Latin America: Classifying caesarean sections. *Reprod Health.* 2009;6:18.
12. Ellen LM, Eileen KH. Elective repeat caesarean delivery versus trial of labor: A meta-analysis of the literature from 1989 to 1999? *Am J Obstet Gynecol.* 2000;183:1187–97.
13. Bangal VB, Giri PA, Shinde KK, and Gavhane SP. Vaginal Birth after Cesarean Section. *N Am J Med Sci.* 2013 Feb; 5(2): 140–144.
14. El-Ardat MA et al. Frequency of Vaginal Birth After Caesarean Section at Clinic of Gynecology and Obstetrics in Sarajevo. *Med Arch.* 2013 Dec; 67(6): 435–437.