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Full Length Research Paper

Safety of vaginal birth after caesarean section

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Vaginal birth after caesarean section is one of the strategies developed to control the rising rate of caesarean section. The objective of this study was to determine the frequency and fetomaternal outcome of vaginal birth in cases of previous caesarean section. The descriptive study was carried out in the department of Gynaecology and Obstetrics for the period of one year from January 2014 to December 2014. Selection criteria were women with normal pregnancy, adequate pelvis, vertex presentation and spontaneous onset of labour with previous uncomplicated caesarean section. Exclusion criteria were women with classical caesarean section, medical complications, multiple pregnancy, IUGR, placenta previa and extensive myomectomy. All data collected was analyzed through SPSS 17.0 version. Frequencies and percentages were calculated for qualitative data. Results were presented by frequency distribution tables. Among 866 women admitted in labour ward fifty women were selected for VBAC. Majority of women (56%) belonged to age group 25-29 years. Regarding parity 74% were multigravida. The gestational age range between 38-40 weeks in 60% of women and only 10% had gestational age more than 40 weeks. VBAC was successful in 70% of women. Emergency caesarean deliveries were performed in 14(30%) of women due to fetal distress and prolonged labour. The cause of previous caesarean section was fetal distress in 34% of cases, malpresentation 24% prematurity 14% APH 10% and hypertensive disorder 12%. The Maternal complication included purepural infection 4%, prolonged hospital stay 4%, wound infection 4%, UTI 2%, pulmonary infection 2% and anemia 10%, fetal morbidities included Apgar score more than 7 in 74% and less than 7 in 24%, early neonatal death in 2%. Vaginal birth in patients with previous caesarean section is safe and open successful and should be offered to reduce the rising rate of caesarean section.

Key words: Caesarean section, VBAC, Fetomaternal outcome.

INTRODUCTION

Caesarean section rate as a mode of delivery has been increasing in recent years despite the three fold increase risk of maternal mortality compared to vaginal deliveryTaj G (2008).

Women who become pregnant after delivering their first baby by caesarean section often have a decision about how to deliver their second baby. Typically, they will be offered the choice of having an elective repeat caesarean section (ERCS) or attempting a vaginal birth after caesarean section (VBAC). The majority of women with an uncomplicated first caesarean section, in an otherwise uncomplicated pregnancy, are candidates for attempting VBAC. (Taj G, 2008; Persadie RJ, 2003; Martin JA, 2002; RCOG, 2007; ACOG, 2010).

In recent years, there has a reported decline in the use of VBAC in several countries. (MacDorman M, 2011). In the USA, the overall rate of VBAC (i.e. successful VBAC/all women with a previous caesarean section) decreased from 24% in 1996 to 8% in 2010. This downward trend, accompanied by rising rates of primary caesarean section, has been significant driver of the overall caesarean section rate, which continues to cause widespread public and professional concern. (Parliamentary Office of Science and Technology, 2013;

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Caesarean sections now account for a QUARTER of all births, 2013)

The increase in caesarean section rate is mainly due to more caesarean sections being performed for breech presentation, Cephalopelvic disproportion (CPD), previous caesarean section and fetal distress. (Notzon FC, 1994) 36% of caesarean section deliveries performed in United States were for the sole indication of previous caesarean section, 29% in Sweden and 22% in Scotland. (Martin JA, 1991)

Tehmina B (2005) reported in the study that in first half of 20th century, a caesarean section implied that, all subsequent pregnancies were likely to be delivered to same way. The fear behind the idea was rupture of caesarean scar. The notion “one caesarean section, always caesarean section” was found on original procedure of classical caesarean section. In 1940 longer segment caesarean was replaced, but the fear of catastrophic uterine scar rupture was retained. Later on nature disclosed the fact that a woman with previous caesarean section who was scheduled for elective caesarean went into spontaneous labour and delivered safely.

Several studies suggest that in women with prior caesarean section for a non-recurrent cause, a trial of labour is safe effective than repeat caesarean section (Blanchette H et al 2001). Large multicenter trails have shown that VBAC’s success rate is between 60% to 90% in appropriate condition with a decrease hospital stay, postpartum infection rate, fewer operative and anesthetic risk, financial savings and immeasurable value of earlier and easier maternal infant interaction. (Bashir R, 2000; Farkhanda S, 1996; ACOG Committee Opinion, 2002). The current medical evidence indicates that about 78% of all women with previous scar, who underwent trails of labour, 81% of them had successful and safe vaginal delivery.(SocolML 2003)

The patients selection for trail of labour (TOL) remains an important aspect of management with previous caesarean section because rupture of previous scar can endanger the life of both mother and her child. Bashir R(2000)

There is evidence that caesarean section increases a women’s risk of severe morbidity and inflicts cost burden on the health services. In addition, many women who have experienced normal birth believe that the experience confers emotional and spiritual benefits. There are various contributing factors, associated with the rising caesarean section rate, for example, the use of fetal monitoring and the increasingly litigious culture of health care, particularly with regard to obstetrics complications, or congenital injuries. However maternal choice has recently become a significant contributing factor. (Pal J, 2000; Fiona M, 2006)

While accepted current UK practice favours, vaginal birth after caesarean section (VBAC) in line with research evidence indicating reduced maternal morbidity, lower costs and satisfactory neonatal outcomes, thus the routine elective section, on the grounds of a previous caesarean birth is not be recommended (Groman W, 2000; Appleton B, 2000). Proper counseling of women for VBAC and evaluation of women has been considered a key method of reducing the caesarean section rate.

METHODOLOGY

This descriptive study was carried out in the department of Gynecology and Obstetrics for the period of one year from January 2014 to December 2014. Ethical approval was taken. Women who met the inclusion criteria were included in the study. Selection criteria were women with normal pregnancy, adequate pelvis, vertex presentation and spontaneous onset of labour with previous one uncomplicated caesarean section. Exclusion criteria were women with classical caesarean section, medical complications, multiple pregnancy, IUGR, placenta previa and extensive myomectomy. Informed consent was taken from all patients, the detail history and thorough examination was performed. All basic laboratory investigation was also carried out. The cases selected for VBAC were monitored carefully during labour by continuous electronic fetal monitoring. All the cases were provisionally prepared for emergency caesarean section. The trial of labour was continued till there was satisfactory progress. Patients were kept under close observation for 5 days. All cases received antibiotics. All data collected was analyzed through SPSS 17.0 version. Frequencies and percentages were calculated for qualitative data. Results were presented by frequency distribution tables.

RESULTS

Among 866 women admitted in labour ward fifty women were selected for VBAC. Majority of women (56%) belong to age group 25-29 years. Regarding parity 74% were multigravida. The gestational age range between 38-40 weeks in 60% of women and only 10% had gestational age more than 40 weeks. VBAC was successful in 70% of women. Emergency caesarean deliveries were performed in 14(30%) of women due to fetal distress and prolonged labour. The cause of previous caesarean section was fetal distress in 34% of cases, malpresentation 24% prematurity 14% APH 10% and hypertensive disorder 12%.

The duration of labour in majority of patients i.e. 36% ws 5 to 7 hours and in 26% of the patients the duration of the labour was <4 hours. Maternal complication included purepural infection 4%, prolonged hospital stay 4%, wound infection 4%, UTI 2%, pulmonary infection 2% and anemia 10%, fetal morbidities included Apgar score more than 7 in 74% and less than 7 in 24%, early neonatal death in 2%.

Table – I, Garvidity.

S.NO	GRAVIDA	FREQUENCY	PERCENT
1.	2-5	37	74.0%
2.	6-10	13	26.0%
	Total	**50**	**100.0%**

Table. Ii, Delivery Outcome.

S. NO	DESCRIBTION	FREQENCY
1.	Total Number of obstetric patients	866
2.	Total Number of patients with 1 LCSC	90
3.	Number of patients given trail	50
4.	Number of patients with successfully VBAC	35 (70%)
5.	Number of patients failed VBAC	15 (30%)

Table. III, Maternal Morbidity.

S.NO	Description	VBAC n = 35		LCSC n = 15	
		Frequency	Percent	Frequency	Percent
1.	Episiotomy	30	60%	-	-
2.	Perineal tear	01	2%	-	-
3.	Postpartum haemorrhage	01	2%	-	-
4.	Puerperal infection	-	-	02	4%
5.	Prolonged	-	-	02	4%
6.	Prolonged hospital stay	-	-	02	4%
7.	Abdominal wound sepsis	-	-	02	4%
8.	UTI	-	-	01	2%
9.	Pulmonary Infection	-	-	01	2%
10.	Anaemia	03	6%	05	10%
	Total				

DISCUSSION

The increased morbidity and mortality associated with caesarean section as compared to vaginal delivery is clearly born out by the literature. (Taj G, 2008; Kashif S, 2010)

Large scale data is insufficiently available in our country. The prevalence of normal vaginal delivery after caesarean section was 70% in our study. This is comparable to most of the study which indicates that 60-80% of women can achieved a normal vaginal delivery following a previous lower segment caesarean section. (Kashif S, 2010; Gyamif C, 2004; Bais JM, 2001; Chanrachakul B, 2000, Avery MD, 2. Many studies are in favour that diagnosis of Cephalo-pelvic disproportion has no prognostic value and should exclude a patients from trail of scar .(Najmi RS 1999) In study of Shaheen F (1997), in most of the studies, women with radiological small, pelvis have delivered vaginally without any disastrous outcome to babies or mothers. We can say that performing X-ray pelvimetry before trail will increase the rate of repeated or elective caesarean section.

Many studies are in favour that diagnosis of Caphalo-pelvis disproportion has no prognostic value and should exclude patients from trial of scar(Kashif s2010).

In current study it was found that women presenting with established labour had a greater chance of successful VBAC i.e. 70%. This result coincides with the results in

Table. Iv, Fetal Outcome.

S NO.		FREQUENCY	PERCENT
1.	>7 APGAR Score	37	74.0
2.	< APGAR Score	12	24.0
3.	Early Neonatal Deaths	1	2.0
	Total	**50**	**100**

other studies (Kashif S, 2010; Flamm B.L, 1988)
There was no maternal morbidity in this study. Maternal morbidity was higher in women who have failed VBAC. Studies revealed that non recurrent indications for previous caesarean section are associated with high rate of success in VBAC (Kashif S, 2010; Bangal B.V, 2013). Low Apgar score was found in 24% of babies and fetal loss occurred in 2% of babies. Benefits of a successful vaginal birth after previous caesarean section is a positive impact on the psychology of women and decreases the total cost of hospitalization.

CONCLUSION

The trail of scar in patients with previous caesarean section due to non-recurrent causes is safe and often successful, and by such practice, we can reduce the rate of caesarean section,
So it is safely to be recommended that the women fit for trial of scar according to the eligibility criteria should undergo strictly monitored tertiary care hospital antenatal care and they should be allowed to have vaginal birth under vigilant monitoring.

CONFLICT OF INTEREST

None to declare

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