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FETOMATERNAL OUTCOME IN PATIENTS WITH PREVIOUS ONE LOWER SEGMENT CESAREAN SECTION, COMPLICATIONS WITH REPEAT SCAR AND TRIAL OF SCAR.

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ABSTRACT… Objectives: The aim of our study is to see the maternal and fetal outcome of pregnancies with previous one lower segment cesarean section. **Study Design:** Prospective study. **Setting:** Department of obstetrics and gynecology at DHQ Teaching Hospital Rawalpindi. **Period:** 1st January 2018 to 31st June 2018. **Material and Methods:** All pregnant women with previous one LSCS and at the gestation of more than 34 week are included after taking consent. **Results:** 258 patients were included. 132(51.2%) had elective LSCS, 106(41%) had emergency LSCS. 77(29.8%) patients actually took trial of scar, 20(25.9%) patients delivered vaginally. 179 (69.8%) patients had no maternal morbidity. 3(1.2%) patients had peripartum hysterectomy secondary to PPH due to placenta previa. The most common indication for emergency LSCS was fetal distress. The second commonest indication was failure to progress in first stage of labour. 248 (96.1%) of our neonates had good APGAR score(>7 at one minute). We had very low rate for NICU admission, only 10(3.9%) neonates were admitted to NICU. 4 neonates were premature, 5 neonates were admitted due to low birth weight and one with fetal hypoxia. **Conclusion:** Rate of repeat LSCS is increasing on maternal demand and fetal distress, by careful selection of the patients for VBAC, proper counseling and advanced facilities for monitoring of fetus, repeat LSCS rate can be decreased with associated decrease in maternal and perinatal morbidity and mortality. Comfortable environment and tender loving care during first delivery can decrease the number of patients with refused trial of labour.

Key words: Lower Segment Cesarean Section (LSCS), Outcome, Vaginal Birth after LSCS.

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INTRODUCTION

The acceptable cesarean delivery rate is still debatable. Delivery after previous one LSCS is a great challenge in present day obstetrics. The overall caesarean section is increasing worldwide. The caesarean section rate has been increased from 5% to 35% in the last 40 years. There is a consensus between NICE[1], RCOG[2], ACOG[3] and NIH that with a single previous LSCS planned vaginal birth is a safe option. There are certain risks associated with VBAC. These include fetal anoxia, fetal death, admission in NICU, uterine scar dehiscence, uterine rupture, placenta previa, placenta accrete, hemorrhage and later on wound infection. There are certain risk factors which increase the complication rate in VBAC. These include short inter pregnancy interval(less than one year), postdates pregnancy, poor bishop score, obesity and maternal age more than 40 years.[4,5]

Trial of the scar is a great challenge for obstetrician in a low resource setting, because of the risk of uterine dehiscence, failed trial of scar, uterine rupture leading to hemorrhage and fetal death. With careful assessment of women who opt for trial of scar and continuous intensive fetomaternal monitoring during labour the complication rate is around 2%.

Counseling of the women and her partner about risks and benefits of repeat elective caesarean, emergency caesarean in case of failed trial of scar and VBAC should be done and a plan of mode of delivery should be documented on antenatal notes.

With careful assessment the success rate of VBAC is from 30-70% depending upon indication of previous caesarean and current status of the mother and baby. However there is increasing trend of decreasing acceptability for trial of scar in women. Trial of scar can reduce repeat caesarean rate considerably.

Our study accesses the mode of delivery ,indication of repeat LSCS, maternal complications in terms of hemorrhage, blood transfusion, intra-abdominal adhesions, peripartum hysterectomy, wound infection and fetal outcome in women with previous one caesarean in terms of APGAR score, weight of the baby, admission in NICU.

MATERIAL AND METHODS

This prospective study was conducted at DHQ Teaching Hospital Rawalpindi between 1st January 2018 to 31st June 2018. Ethical approval from local ethical committee was taken. We included all women with previous one LSCS and at a gestation of more than 34 weeks who came to DHQ hospital. We excluded the patients with previous one scar and gestational age less than 34 weeks, previous two or more than two scar and pregnancy with previous classical caesarean section. Detailed history was taken regarding demographic details, past obstetrical history, indication of previous caesarean, antenatal, intrapartum, postpartum complications, gestation of delivery, place of delivery, and weight of the baby. Detailed history about current pregnancy regarding her last menstrual period, her dating scan, past medical and surgical history and socioeconomic history was also taken. Detailed general physical and obstetrical examination was done, counseling of the woman and her partner was done at 36 weeks regarding risks and benefits of elective versus emergency LSCS and VBAC. Assessment for feasibility of vaginal delivery was done at 37 weeks, Plan of birth and consent of the patient was documented in antenatal note. Women who were non-booked and came in emergency, were accessed at the time of presentation.

The women who were not fit for trial of scar, refused trial of scar or had any medical problem like PIH, DM etc. were admitted in antenatal ward at 38+ weeks, steroid cover given regarding fetal lung maturity and elective LSCS done at 38+ weeks. Those women who were willing for trial of scar were cared on OPD basis. They waited for spontaneous onset of labour till 40 weeks, if they go in spontaneous labour trial of scar was given if they did not go in spontaneous labour, elective LSCS was done. We did not allow the women to go postdates. We are not doing induction of labour in women with previous caesarean section due to increased risk of complications and lack of extensive monitoring facilities in our hospital.

The woman who went in spontaneous labour, all preparation for emergencys LSCS, blood transfusion and neonatal care were made. All the patients were observed for complications like blood transfusion, PPH, hematoma formation, and sepsis. Neonates were observed regarding APGAR score, weight of the neonate, admission in NICU and perinatal mortality.

Women with successful VBAC were discharged after 24 hours and women with repeat scar were discharged on 3rd post-operative day, called back on 7th post-operative day for stitch removal.

RESULTS

During study period a total of 3560 women delivered in DHQ hospital. 258(7%) patients had previous one scare who were included in our study, 92(35.6%) were not suitable for trial of scar, 166(64.4%) were suitable for trial of scar but 58(22.5%) refused trial of scar.

So 108 (41.9%) were willing for trial of scar. Out of these 108 patients 22 became postdates so elective LSCS done for them, rest of the 86 patients went in spontaneous labour and out of them 9(10.5%) patients refused trial of scar during labour, remaining 77(29.8%) patients actually took trial of scar, 20(25.9%) patients delivered vaginally, rest of the 57(74.1%) patients had emergency LSCS due to different indications. The commonest indication for emergency LSCS was fetal distress. The second commonest indication was failure to progress in first stage of labour. Regarding elective LSCS the most

common indication was refused trial of scar, 67(26%) patients refused trial of scar. Although these patients were fit for trial but they refused. Oligohydromnios was the second most common cause of elective LSCS. 15(5.8%) patients had repeated elective LSCS followed by the breech presentation 14(5.4%).

In our study 179(69.4%) patients had no morbidity, 32(12.4%) patients had adhesions with anterior abdominal wall, omentum, bowel or bladder, 13(5%) patients had scar dehiscence without labour, 8(3.1%) patients need blood transfusion and 3(1.2%) patients had peripartum hysterectomy due to placenta previa leading to PPH. 6(2.3%) patients had wound infection at 4th post-operative day and another 4(1.2%) got puerperal pyrexia.

In our study 131(50.8%) were female babies and 127(49.2%) were male babies.226 (87.6%) has birth weight between 2.5 kg – 3.5 kg.25 (9.7%) babies were low birth weight and 2 (0.8%) babies has birth weight >4kg.

In our study 248(96.1%) were with good APGAR score,6(2.3%) babies born with poor APGAR score and they were resuscitated. 4 (1.6%) babies delivered with no signs of life. they were diagnosed before birth and had no identifiable cause for their death.

In our study only 10(3.9%) babies needed NICU care 3 of them were preterm and rests of them were with low birth weight.

Mode of Delivery	Frequency	Percent	Valid Percent	Cumulative Percent
VBAC	20	7.8	7.8	7.8
Emergency lscs	106	41.1	41.1	48.8
Elective lscs	132	51.2	51.2	100.0
Total	258	100.0	100.0	

Table-I. Mode of delivery

Indication for repeat LSCS	Frequency	Percent	Valid Percent	Cumulative Percent
	20	7.8	7.8	7.8
breech	14	5.4	5.4	13.2
IUGR	4	1.6	1.6	14.7
twins	2	.8	.8	15.5
Post dates	22	8.5	8.5	24.0
Abruptioplacenta	3	1.2	1.2	25.2
PIH	26	10.1	10.1	35.3
Fetal distress	34	13.2	13.2	48.4
failure to progress in first stage of labour	15	5.8	5.8	54.3
failure to progress in second stage of labour	20	7.8	7.8	62.0
oligohydromnios	15	5.8	5.8	67.8
scar tenderness positive	9	3.5	3.5	71.3
refused trial of scar	67	26.0	26.0	97.3
Placenta previa	7	2.7	2.7	100.0
Total	258	100.0	100.0	

Table-II. Indication for repeat LSCS

Complications with repeat LSCS	Frequency	Percent	Valid Percent	Cumulative Percent
No complication	179	69.4	69.4	69.4
scar dehiscence	13	5.0	5.0	74.4
blood transfusion	8	3.1	3.1	77.5
Tears extending in lower segment	7	2.7	2.7	80.2
adhesions with omentum, bowel ,bladder or anterior abdominal wall	32	12.4	12.4	92.6
peripartum hysterectomy	3	1.2	1.2	93.8
complications of anesthesia	2	.8	.8	94.6
PPH	5	1.9	1.9	96.5
puerperal pyrexia	3	1.2	1.2	97.7
wound infection	6	2.3	2.3	100.0
Total	258	100.0	100.0	

Table-III. Maternal morbidity

Sex of the Babies	Frequency	Percent	Valid Percent	Cumulative Percent
Female	131	50.8	50.8	50.8
Male	127	49.2	49.2	100.0
Total	258	100.0	100.0	

Table-IV. Fetal outcome

Weight of the Babies	Frequency	Percent	Valid Percent	Cumulative Percent
< 2.5 kg	25	9.7	9.7	9.7
2.5-3.5 kg	226	87.6	87.6	97.3
3.5 -4KG	5	1.9	1.9	99.2
> 4 kg	2	.8	.8	100.0
Total	258	100.0	100.0	

Table-V. Weight of the babies at birth

APGAR Score of the Babies	Frequency	Percent	Valid Percent	Cumulative Percent
Good(7/10)	248	96.1	96.1	96.1
poor, needs resuscitation(<7/10)	6	2.3	2.3	98.4
iud	4	1.6	1.6	100.0
Total	258	100.0	100.0	

Table-VI. Apgar score of the babies

Admission in NICU	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	10	3.9	3.9	3.9
No	248	96.1	96.1	100.0
Total	258	100.0	100.0	

Table-VII. Admission in NICU

DISCUSSION

Women with previous one lower segment caesarean section is a high risk population both antenatally and during labour. Decision about trial of labour or elective repeat lower segment caesarean section is on individual basis and need careful counseling of the couple.[12] In our study 258 cases with previous one scar were included, 77(29.8%) cases were given trial of scar and 20(25.9%) cases had successful VBAC as against 39.9% of the patients by landon et al and 64% cases in a study by Gonen and their colleagues.[6] This low rate in our study is due to the reason that we are not inducing or augmenting labours with previous scar. The proportion of women undergoing trial of scar is decreasing day by day. This may be due to fear of complications,

increased litigation in obstetrics and due to suboptimal monitoring facilities in some units. Sometimes obstetrician is sued for not doing a caesarean section.[7]

An Australian cohort study reported a VBAC rate of 59%(10), contrary to our study where VBAC success rate was 25.9%. This difference may be because in our study we did not induce patients with previous scar and we have less monitoring facilities due to low resources. A large no of patients also refused trial of scar leading to low success rate of VBAC in our study.

We found that 106(41.1%) patients were delivered by em lscs and the most common indication for em LSCS in our study was fetal distress, similar results were seen by Vardhan Shakthi et.at[13], Shah Jitesh Mafatlal et.al[14] and Shruthi s Goel et.al.[15]

In our study we had 32(12.4%) cases with intraoperative adhesions, adhesions between uterus and anterior abdominal wall, bowel, bladder and omentum contrary to the study by Parikh et al, they found excessive adhesions 36%.[8] There is increased morbidity and mortality with abdominal delivery as compared to vaginal delivery, along with low risk of uterine rupture in carefully selected patients for trial of scar[9] can decrease the high repeat LSCS rate. In our study 179(69.4%) cases had no morbidity.

Fetal outcome is better in our study we had 4 still births as compared to Zahid et al; they had 20still births in their study.[11] 248 (96.1%) of our neonates had good APGAR score (>7 at one minute). we have very low rate for NICU admission, only 10(3.9%) were admitted to NICU, 4 were premature, 5 babies were admitted due to low birth weight and one with fetal hypoxia.

67 (26%) of our patients with previous one LSCS refused trial of scar. our results are not comparable with any study in this respect. The reasons were, our patients did not want to wait till 40 weeks. Most of the patients had painful experience during previous childbirth; they did not accept risk of failed VBAC followed by emergencys LSCS. Patients wanted 100% success of VBAC which no obstetrician can give. However further studies are needed to evaluate the refusal of trial of labour.

CONCLUSION

The current study concludes that women with previous one LSCS are at increased risk of repeat scar, vigilance with respect to indication for primary scar, proper counselling for trial of labour and careful selection of the patients for VBAC can decrease the morbidity and mortality associated with LSCS. Our findings encourage obstetricians to further dig into the matter of refused trial of scar and to give tender loving care during first delivery. We may need to take psychological consultation for patients to evaluate their reason for refusal of scar, so that we can decrease the factors which bother these women and ultimately decrease the repeat LSCS rate. Further studies are needed to evaluate the indications of repeat scar and to decrease the repeat cesarean section rate.

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