Mode of Delivery after Caesarean Section

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A retrospective study was carried out at the department of Obstetrics and Gynaecology from 1999 – 2001, at Jinnah hospital Lahore. Obstetric performance of 328 women with previous caesarean sections was studied. The vaginal delivery was attempted in 52.4%, while it was successful in 32%. Incidence of repeat caesarean section was 65.6%. The leading indication for the repeat caesarean section were failure to progress, (14.3%). fetal distress, (13.2%). cephalopelvic disproportion, (10.5%) and malpresentation, (14.7)%. Post date, (11.19%). Previous two or three caesarean section, (19.9%).

Key words; Previous caesarian section, vaginal delivery.

The caesarian section rate is increasing over past 14 years, all over the world. If the old policy of doing elective repeat cesarean section continues to be practiced, it will lead to a caesarean section rate, that will be unacceptable to the public, the government, and the third party, payers. Cragin's once a caesarean , always a caesarean, must be abandoned, and replaced by once a caesarean always a hospital delivery.

In our setup, natural childbirth, is not only expected, but also often urged by patients and her family, inspite of previous caesarean section. The question therefore arises, how safe is the mother and her baby at trial of scar after caesarean section. If there is potential risk at vaginal birth after caesarean section, can it be justifiably undertaken.
It has been suggested, that labor may be allowed in women, who have had one caesarean section, in the absence of recurrent and or additional indications for elective caesarean section.[1].

Material and methods

A retrospective study was carried out at the department of Obstetrics and Gynaecology from Jan 1999–2001, at the Allama Iqbal Medical College Lahore. All the patients including booked patients and emergency patients, with one previous caesarian section were included in this study.

The patients, who were allowed a trial of labor consisted of subjects with a clinically adequate pelvis, vertex presentation, and a normal pregnancy and were known to have had only one previous uncomplicated lower uterine segment (transverse incision) caesarian section. Exclusion criteria included previous classical caesarean operation, and women with additional obstetrics or medical complications, such as diabetes, hypertension, multiple pregnancy, malpresentation, intrauterine growth, retardation and placenta praevia, which might influence the management or out come of labor. The patients with previous caesarean section were not induced, however labor was augmented when required with oxytocin infusion. The selected patients were allowed to go into spontaneous labor.

Management of labor was under the close supervision of Registrar, partogram was maintained and trial of labor was discontinued on one of three conditions of arrest of active phase labor. (lack of progressive cervical dilatation after 4 cm of dilatation has been achieved or whenever there was lack of cervical dilatation over a 2 hour period of active phase labor), fetal distress, or clinical concern or suspicion of impending uterine rupture.

Epidural analgesia was not administered to any patient, pain relief, when required, was achieved with an intramuscular injection of 100 mg of pathedine and 25 mg of promethazine. The external cardiotocography was used for fetal monitoring.

Following successful vaginal delivery, digital exploration of the lower uterine segment was not undertaken to exclude scar dehiscence or rupture on each case except in suspected cases.

Results

Table 1. Indications of repeat caesarean sections

Indications	n.	%age
Failure to progress	41	14.3
Fetal distress	38	13.2
Cephalopelvic disproportion	30	10.5
Breech	30	10.5
Postdate	32	11.19
Previous two caesarean section.	41	14.3
Previous three caesarean section.	16	5.6
Placenta praevia.	10	3.5
Twin pregnancy	8	2.8
Malpresentations	12	4.2
Impending rupture of uterus	14	4.9
PIH, eclampsia.	11	3.85
Previous history of hysterotomy, myomectomy, rupture of uterus.	3	1.04

Table 2 Number of patients with previous caesarean sections and mode of delivery

	n	%age
Total patients	328	
Elective caesarian sections	156	47.6
Attempted vaginal delivery	172	52.4
Successful	60	34.9
Failed attempt;	112	65.1

Table 3. Patients with one previous caesarean section, effects of previous vaginal delivery on the method of present delivery

Method delivery	attempted vaginal delivery	Previous vaginal delivery	No previous vaginal delivery
	172	120	52
Repeat caesarean section	112(65.1%)	44(63.3%)	34(65.4%)
Vaginal delivery	60(34.9%)	76(63.3%)	18(34.6%)

Discussion

The increased mortality and morbidity associated with caesarean section as compared with vaginal delivery is clearly born out by the literature[2]. This fact together with the low reported incidence of uterine rupture and consequent maternal and fetal compromise. Saldana strongly argues for a trial of labor on carefully selected patients with previous caesarean section[3]. The cesarean section rate in our unit during study period was 30%. From the present study of 328 patients, it has been found, that vaginal birth after caesarean (VBAC) was successful in 34.9 %, this had been achieved by allowing 52.4% of previous caesarean section patient to attempt vaginal delivery.

A previous vaginal delivery in patients who had a previous caesarean section is a good prognostic factor for a subsequent successful vaginal delivery in the trial of scar. According to one study, among women with one previous caesarean section and one vaginal delivery, those whose most recent delivery was vaginal had a lower rate of caesarean section and shorter duration of labor than did those whose most recent delivery was caesarean[4].

In our study patients with previous one caesarian section, who had previously delivered vaginally demonstrated a better chance of successful vaginal delivery than those, who had no previous vaginal delivery. The patients who had primary caesarean section for non recurrent cause showed vaginal birth after caesarean in 54.6%. while those with recurrent cause 20.8%. Most studies of vaginal birth after caesarean section report are incidence of rupture uterus of 0.5–1%. In our study there was no uterine rupture, only one uterine dehiscence occurred. No maternal death occurred in our study, perinatal mortality was 20/1000.X ray pelvimetry was not used routinely. It increases the caesarean section rate and is a poor predictor of the outcome of labor. Vaginal birth after caesarean section can be achieved in some grand multipara with a previous scar in the uterus, however there is an increased risk of serious complications,[5]. Caesarean section leads to much higher morbidity than the vaginal delivery on previously scarred uterus, infections, thrombophlebitis, anemia, and longer hospital stay are more commonly seen after caesarean. In our study no patient was induced. Induction of labor following caesarean section is associated with a significantly higher incidence of repeat caesarean section in women who have not had a previous vaginal delivery. If the cervix is not effaced at induction, the repeat caesarian section is higher than, if the cervix has started to efface,[6]. The patient with two previous caesarian sections were not given trial in our study, they had repeat elective caesarian section. However one patient with previous two caesarean section came fully dilated and had uncomplicated vaginal delivery. In one study, the rate of vaginal birth following trial of labor after previous two caesarian sections was 65.6%[7].

Conclusion

Emergency caesarian section in patients who were not booked, have had no antenatal care, with prolonged and neglected labor, with fetal malpresentation and malposition, played a significant role in contributing to the rate of caesarian section in our unit. Incidence of repeat caesarean section was higher in our study. The number of vaginal delivery might be increased by proper selection of patients, by induction of labor and proper diagnosis of fetal distress with use of scalp blood PH of fetus. Caesarean section after failed attempt at vaginal delivery resulted in much higher morbidity than the vaginal delivery on previously scared uterus. Trial of labor is safe, provided proper selection of patients and exclusion of contraindications.

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