

Original Research Article

Clinical Profile and Outcome of Labour in Cases Following Previous Caesarean Section

Devendra R. Chaudhari^{1*}, Shubhangi M. Shinde²

¹Associate Professor, Department of Pharmacology, Dr. Ulhas Patil Medical College & Hospital, Jalgaon,

Maharashtra, India

²Senior Resident, Department of Obstetrics & Gynecology, R.C.S.M. Government Medical College, Kolhapur, Maharashtra, India

^{*}Correspondence Email: devendra7681@gmail.com

Received: 27/10//2012

Revised: 24/11/2012

Accepted: 26/11/2012

ABSTRACT

This prospective study was conducted in C.P.R. Hospital, Kolhapur. Considering the previous records regarding the proportion of Caesarean Section to normal delivery, 200 patients were included in present study from June 2006 to November 2006. Out of these 58 % cases were booked & 42 % were un-booked. The total incidence of vaginal delivery was 47 % of which 43 % delivered spontaneously & 4 % were assisted deliveries. 53 % required repeat caesarean section of which 80 cases underwent emergency C.S. & 25 cases underwent elective C.S. One case was diagnosed as rupture uterus in which subtotal hysterectomy was done. After studying 200 cases, we concluded that vaginal delivery is much safer than caesarean section as there are fewer complications with less maternal morbidity & mortality. To reduce overall caesarean section rates & prevent repeat caesarean section, vaginal delivery should be anticipated in favourable cases.

Key Words: Labour, caesarean section, vaginal delivery

INTRODUCTION

Practicing obstetricians encounter increasing number of post caesarean pregnancies because the number of primary caesarean sections for non recurrent causes is rapidly rising. Today it is done for multifactorial reasons; hence its incidence has increased 8 to 10 times. Rate of caesarean delivery has increased from 4.5% in 1965 to 25% in 1998 and since then it has declined not only in USA but in several other countries.^[1] For many years, the scarred uterus was felt to contra-indicate labour out of fear of uterine rupture. In modern obstetrics incidence of scar rupture is minimal because of prompt diagnosis and early management.

The chances of vaginal delivery are greater if previous indication is non recurrent or prior to caesarean section (CS) patient had a vaginal delivery. The advantage of doing so is that operative abdominal delivery is certainly accompanied by increased maternal mortality & morbidity which account for 10 times more than that found after vaginal delivery.

Most authors are in favour of the idea of admitting patient in an institute where it possible to change over from vaginal delivery to caesarean section within short time where an obstetrician's presence and constant monitoring of FHS is obligatory. This is of utmost importance because if the rupture of scar occurs, both the mother and the foetus would be in danger. Since the possibilities of response of scar to the stretch and strain in subsequent pregnancies cannot be assessed prior. A scar is called safe retrospectively only after a normal uneventful vaginal delivery.

The perinatal morbidity and mortality can be decreased to minimum by choosing the correct time for elective caesarean in succeeding post caesarean pregnancy using USG for confirmation of maturity. Avoiding the C.S. in fetuses weighing between 1000 gm. and 2499 gm. if expert neonatal care is not available can also decrease perinatal morbidity.

Thus while managing a patient with post caesarean pregnancy no rigid policy can be used, rather each case should be individualized as the critical judgment takes precedence over strict scientific information.

With the increasing incidence of caesarean section reasons mentioned above, obstetricians of the present and future generation are going to face more and more cases of scarred uterus. The present study is an attempt to analyze the existing trends in our teaching hospital in management of patients with scarred uterus in subsequent pregnancy.

SUBJECTS AND METHODS

This study was conducted in C.P.R. Hospital which is a teaching hospital and a tertiary referral centre at Kolhapur with facilities for monitoring and 24 hr care where it is possible to take emergency operative decisions and consultation can be done with other specialties if necessary. Considering the previous records regarding the proportion of C.S. to normal delivery, 200 patients were included in present study from June 2006 to Nov. 2006

In this group, patients were belonging to booked and un-booked category. Booked patients at their first antenatal visit were registered and called regularly for check up monthly up to 28 weeks then every 15 days up to 36 weeks and weekly till term. Detailed history taking & examination was done for all patients.

In booked patients investigations like Hb %, Blood group, Rh typing, Urine albumin & sugar, VDRL was carried out in ANC clinic. Ultrasonography was done to detect any congenital anomalies of foetus, localization of placenta, amount of liquor and to know maturity of foetus.

After knowing the presentation, position of foetus, stage of dilatation of cervix and assessing pelvis patients were given trial of labour.

Monitoring of FHS and uterine contractions done strictly as there are chances of foetal distress and rupture of scar. In few cases to cut short second stage of labour outlet forceps were applied. Episiotomy was given to expedite the delivery.

If previous Caesarean section was done for recurrent cause or patients with history of previous two caesarean sections patients were admitted at 37 weeks and posted for elective Caesarean section after confirmation of foetal maturity.

STATISTICAL METHODS^[2]

Sample size was calculated by using formula- $n = 4 \text{ pq/L}^2$ Where p is the positive character (mean prevalence of 5 yrs), q is 1–p and L is allowable error.

Qualitative data was analyzed by using chisquare test (χ^2). p value < 0.05 means statistically significant, p value < 0.001 is highly significant, p value > 0.05 is

RESULTS

Table No.1- Outcome of labour	in	post caesarean
section		

Sr. no.	Outcome in present	No of	Percentage
	pregnancy	cases	
1	Vaginal delivery:		
	a) Normal	86	43 %
	b) Assisted		
	delivery-	7	3.5 %
	i) Forceps	1	0.5 %
	ii) Ventouse		
	Total	94	47 %
2	Abdominal		
	delivery:	80	40 %
	a) Em. L.S.C.S.	25	12.5 %
	b) Elective C.S.	1	0.5 %
	c) Subtotal		
	hysterectomy		
	Total	106	53 %

insignificant.

- ➢ 47 % of cases could be delivered vaginally either spontaneously or assisted.
- 53 % cases required repeat caesarean section and more of them were emergency caesarean sections.
- Out of 106 cases that underwent repeat caesarean section, 25 cases elective caesarean section & 80 cases in which emergency caesarean section was performed.
- One patient who had come late in labour diagnosed as rupture uterus & subtotal hysterectomy was done.

Sr. No.	Indication	Total No. Of cases	Current pregnancy	ý
			Vaginal delivery	C.S.
1.	CPD	54	12 (22.22%)	42 (77.77%)
2.	Foetal distress	30	22 (73.33%)	8 (26.66%)
3.	PROM	22	16 (72.72%)	6 (27.27%)
4.	Eclampsia	20	7 (35%)	13 (65%)
5.	Prolonged labour	18	6 (33.33%)	12 (66.66%)
6.	Malpresentation	16	11 (68.75%)	5 (31.25%)
7.	APH	6	6 (100%)	-
8.	Other	34	14 (41.17%)	20 (58.82%)
Total		200	94 (47%)	106 (53%)

Table No.2- Indication of previous caesarean section and their outcome in current pregnanc
--

Recurrent (CPD) Vs Non-recurrent (Rest) indication outcome-(χ^2 value-16.9, p value is < 0.001)

- > The above table suggests that non recurrent indications have more favorable outcome than recurring indications and it is statistically highly significant (p value is <0.001)
- Foetal distress was the most common non-recurring indication for which caesarean section was done, i.e. in 30 cases (15 %); vaginal delivery occurred in 73.33 % of these cases.
- Prabha Singhal et al (1992)^[3] had similar findings. In their study out of 57 cases of foetal distress (as an indication of previous C.S.), vaginal delivery occurred in 78.9 % cases.

Sr No.	Outcome of trial of labour	No. of cases	Percentage
1.	Spontaneous Vaginal delivery	86	60.56 %
2.	Assisted delivery a) Forceps b) Ventouse	7 1	4.92 % 0.70 %
3.	Unsuccessful	48	33 %
	Total	142	100 %

Table No.3- Outcome of trial of labour in present pregnancy

- In present study 142 cases were given a trial for vaginal delivery that had one previous lower segment transverse incision & no additional indication.
- 60.56 % delivered spontaneously while 5.62 % cases delivered with assistance by forceps or ventouse.
- ➢ 33 % cases required repeat caesarean section.

Tuble 100 F History of previous one of more vuginar dervery a present outcome.				
H/O previous one/ more delivery	Present outcome			
n/o previous one/ more derivery	No. of cases	Vaginal delivery	Repeat C.S.	Rupture uterus
H/O previous one/ two vaginal				
delivery	40	25 (62.5 %)	15 (37.5 %)	0
No H/O of previous vaginal delivery	160	69 (43.12 %)	90 (56.25 %)	1 (0.62%)
χ^2 value is 4.075		p value is < 0.05		

Table No. 4- History of previous one or more vaginal delivery & present outcome.

- From above table it is seen that out of 200 cases 40 were with history of previous vaginal delivery. Out of which 25 cases delivered vaginally & 15 cases required repeat caesarean section.
- In remaining cases there was no history of previous vaginal delivery out of which 69 cases delivered vaginally where as 90 cases underwent repeat C.S. & in one case rupture uterus was seen.
- This indicates that cases with history of previous vaginal delivery have better chance of vaginal delivery and it is statistically significant. (p value is < 0.05)</p>

	marcunon for repear caesar can see	non aang pres	ene presence
Sr.No	Indication	No. of cases	Percentage
1.	CPD	42	39.62 %
2.	Foetal distress	14	14.15 %
3.	PROM	11	10.37 %
4.	Prolonged labour	10	9.43 %
5.	Previous 2 LSCS	8	6.60 %
6.	Bad obst. History	5	4.7 %
7.	Post dated with oligohydramnios	4	3.77 %
8.	Transverse lie	2	1.88 %
9.	Severe PIH with eclampsia	4	3.77 %
10.	Breech	3	2.83 %
11.	Cord prolapse	2	1.88 %
12.	Pre. Classical C.S.	0	0 %
13.	Ruptured uterus	1	0.94 %
	Total	106	100 %

Table No.5- Indication for repeat caesarean section during present pregnancy

- From above table it is seen that CPD is main indication of repeat caesarean section in present pregnancy i.e. 39.62 %.
- > Trial for vaginal delivery was given in few patients with previous indication as CPD.
- > The other major indication was Foetal distress i.e. 14.15 %
- Other indications were PROM (10.37 %), prolonged labour (9.43 %), previous two caesarean sections (6.60 %) cases.
- > Only in one case rupture uterus occurred & subtotal hysterectomy was done.

Tuble 1000 Toetal butcome in present pregnancy				
Outcome	Vaginal delivery	Abdominal		
		delivery		
Birth Weight-				
a) ≥ 2.5 kg.	59 (62.76%)	73 (68.86 %)		
b) < 2.5 kg.	29 (30.85%)	30 (28.30 %)		
Living children	88 (93.61%)	103 (97.16 %)		
Still birth	4 (4.25%)	1 (0.94 %)		
Neonatal death	2 (2.12%)	2 (1.88%)		
Total	94	106		

Table No.6- Foetal outcome in present pregnancy

- From above table it is seen that birth weight is ≥ 2.5 kg seen in majority of patients with repeat C.S. (68.86 %) as compared to vaginal delivery (62.76%).
- ➤ Most of the babies with birth weight
 ≥ 2.5 kg were seen in caesarean section. Foetal outcome is better with abdominal route of delivery.
- Perinatal mortality was 6.38 % in vaginal delivery and 2.83 % in abdominal delivery.

Table No. 7-	Complication	after vaginal	delivery
	- · · · · · ·		

Sr.	Complication	Total no of	Percentage
No		pts.	
1.	Perineal tear	4	4.25 %
2.	Cervical tear	5	5.37 %
3.	Para-urethral tear	2	2.12 %
4.	Episiotomy wound	2	2.12 %
	gaping		
		13/94	13.82 %

In present study most of the complications were in the form of trauma to lower genital tract in 13.82 % patients who delivered vaginally with previous caesarean section.

section			
Sr.	Complication	No. of	Percentage
No		pts.	
1.	Urinary tract infection	15	14.15 %
2.	Puerperal pyrexia	14	13.20 %
3.	Wound infection	4	3.77 %
4.	Gaping of wound	3	2.83 %
5.	Respiratory tract infection	2	1.88 %
6.	Burst abdomen	2	1.88 %
7.	Genital tract infection	-	-
		40/106	37.73 %

 Table No.8 - Complication after repeat caesarean

 continue

- From above table it is seen that most of complications were in form of Urinary tract infection (14.15 %), Puerperal pyrexia (13.20 %) Wound infection (3.77 %) in the form of wound discharge.
- Gaping of wound was seen in 2.83 % cases and burst abdomen in 2 cases which was resutured again.
- Respiratory tract infection was seen in 2 cases (1.88 %).

DISCUSSION

Primary caesarean section converts a healthy gravida into an obstetric cripple who has to be cared more closely thereafter in each pregnancy. The introduction of antibiotics, safer anaesthetic techniques, Blood transfusion facilities and a broader outlook towards foetal outcome have widened the indications for caesarean sections. Because of this post caesarean pregnancy & labour is the problem faced in modern obstetrics.

Flamm B.L. ^[4] says "Once a cesarean always a controversy" The

traditional belief "Once a caesarean always a caesarean" expressed by E.B. Craigin (1916) is also there, but this concept is being re-evaluated because of increasing incidence of caesarean sections, high rate of maternal morbidity with abdominal delivery.

So there is change in old dictum to "Once a caesarean always a hospital delivery." Recent data suggests that half of women who have delivered by caesarean section can have a trial of labour in future pregnancies.

In our hospital the rate of caesarean section has increased from 18.7 % in 2001 to 21.47 % in 2005. In present study at tertiary referral centre, Kolhapur 200 cases of previous caesarean section studied, 58 % cases were registered at antenatal clinic and 42 % cases were un-booked and were admitted directly in labour. Most of patients were referred from rural areas and PHCs around our hospital. Majority of patients fall in age group of 21-25 yrs i.e. 56 % which is the most fertile period of woman's life. 11 % cases were in age group 15-20 yrs because women are married at an early age and they do not adopt any contraceptive measures.

Outcome of trial of labour in present pregnancy

In present study out of 200 cases, 47 % cases delivered vaginally from which 43 % delivered spontaneously, 3.5 % by forceps and 0.5 % by ventouse.

Comparative percentage of vaginal delivery after TOL of various authors.

Sr. No.	Author	Year	Percentage
1.	Maryellan Hanley	1990	66.2 %
2.	Prabha Singhal ^[3]	1992	48 %
3.	V.K.Singh	1995	65.85 %
4.	Shailesh Kore ^[5]	1996	50.85 %
5.	Kamlesh Yadav ^[6]	2000	67.16 %
6.	Nirmala Pandey ^[1]	2002	42 %
7.	Mara J. Dinsmoor ^[7]	2004	76 %
8.	MJA Turner ^[8]	2006	77.8 %
9.	Present study		67.0 %

Results in present study are comparable with Kamlesh Yadav (2000) having 67.16 % of vaginal delivery after TOL.

Forceps were applied to cut short second stage & reduce maternal exhaustion in present study in 7 cases.

53 % of cases needed repeat caesarean section in which 12.5 % cases underwent elective caesarean section.

Only in one case subtotal hysterectomy was done who had come directly in labour and diagnosed as rupture uterus.

Criteria for allowing a trial of labour have become liberal depending on woman with previous type of scar non recurrent indication.

Among women with one prior caesarean delivery undergoing a subsequent trial of labour, those with a prior vaginal delivery were at substantially lower risk of uterine rupture (0.2 %) than women without a previous vaginal delivery (1.1 %), Carolyn Zelop et al (2000).^[9]

George A. Macones et al (2005)^[10] found that the overall incidence of uterine rupture in those attempting VBAC is quite low.

Uterine rupture cannot be predicted with either individual or combination of clinical factors which has important clinical and medical-legal implications, George A. Macones et al (2006).^[11]

Williams A. Grobman et al (2007) ^[12] concluded that induction of labour is associated with a clinically small increase in maternal morbidity in women with no prior vaginal delivery.

Following points to be considered for trial of vaginal delivery-

a) Timing of hospital admission:

Riva & Teich (1961)^[13] admitted patients 10 to 14 days prior to their Expected Date of Delivery (EDD) while other authors did not advice prelabour admission but asked them to admit as early as possible in labour.

In present study patients were asked to admit in labour as early as possible.

b) Mode of delivery:

There is a great controversy regarding the use of prophylactic forceps to cut short second stage of labour.

Meehan & associates (1972)^[14] used forceps to cut short the second stage of labour while some authors did not use prophylactic forceps for fear of scar rupture. In present study in 4.92 % cases prophylactic forceps used to cut short second stage of labour.

c) Malpresentations:

(i) Breech : Case & associates (1971) ^[15] described that breech presentation is a contraindication to vaginal delivery in patients with previous caesarean section as scar may rupture due to manipulations. Vaginal delivery is recommended in younger woman with an adequate pelvis, average size baby, extended breech without any associated obstetric complications like PIH, APH, diabetes etc. where elective caesarean section is done

Congenital anomalies are to be ruled out by ultrasonography.

(ii)Twins: Case & associates (1971) said that vaginal delivery in twins in patients with prior caesarean section should not be allowed because manipulations required for delivery may cause scar rupture.

d) Use of oxytocin:

The use of oxytocin during an attempt of vaginal delivery is controversial.

V.K.Singh & Prabha Singhal ^[16] emphasized the use of oxytocin during trial

of labour and achieved a success rate of 90.38 % & 88 % respectively.

Sheshi Iyer et al (2001)^[17] found 69 % success rate with the use of oxytocin and stated that oxytocin infusion, if properly given, doesn't increase the risk of trial of labour.

Anjoo Agarwal et al (2002) [18] achieved 90.6 % success rate and stated that scar rupture appears to be associated with prolonged infusion of oxytocin for 6 hrs despite poor progress of labour.

In present study 68.43 % delivered vaginally when trial of labour was given to 19 cases. Monitoring should be done strictly to see for FHS, uterine contractions & signs of impending rupture.

e) Artificial rupture of membranes (ARM):

There are controversies regarding artificial rupture of membranes in patients with previous caesarean section. O' Connell (1950) said that it is justified to induce labour while Cosgrove (1950) ^[19] was against this concept.

f) Post partum exploration of scar: Gibbs C. E., ^[20] Case B. D., Corcoran R., Saldana L. R. have advocated post partum transcervical palpation of uterine scar.

In present study exploration of scar was not done in every case unless complication occurred. Women with one prior lower segment caesarean section should be counseled to undergo trial of labour.

In present study 142 cases were subjected to trial of labour out of which 86 cases (60.56 %) delivered spontaneously, 7 cases (4.92 %) were forceps delivery & one (0.7 %) delivered by vacuum extraction. Remaining 48 cases (33 %) needed repeat caesarean section.

Incidence of forceps delivery is low (4.92 %) and is comparable to Raksha Arora (1992) while other authors have higher incidence.

Authors	Total No	Vaginal Delivery		
Autions	of Cases	Spontaneous	Outlet Forceps	Ventouse
Raksha Arora(1992) ^[21]	274	11.67 %	8.02 %	6.20 %
Anjoo Agarwal(2002)	155	54.2 %	14.2 %	
Vardhan Shakti (2006) ^[22]	171	12.28 %	21.05 %	66.66 %
Present study	142	60.56 %	4.92 %	0.7 %

Comparison of incidence with various authors

William A. Grobman et al ^[23] have developed a Predictive Graphic Nomogram, which incorporates six variables easily ascertainable at the first prenatal visit that allows the determination of a patient-specific chance for successful VBAC for those women who undertake trial of labour.

History of previous one or more vaginal delivery & present outcome - Comparison with various authors:

Author	No of pts with vag. delivery	No of pts delivered	No of pts without V.D.	No of pts Delivered
Shailesh Kore (1996)	168	107 (63.9%)	182	71 (39.11%)
Sheshi Iyer (2001)	46	39 (84.8%)	158	99 (62.7%)
Present study	40	25 (62.5%)	160	69 (43.12%)

Thus previous vaginal delivery improves the prognosis in subsequent pregnancy & more likely chances for patient to deliver vaginally. Even with patients without history of vaginal delivery can deliver without any risk.



Indications of repeat caesarean section in present study-

1) CPD:



The main indication was major degree cephalopelvic disproportion in 42 cases i.e. 39.62 %. Out of which 16 cases underwent elective caesarean section and 26 cases had to undergo emergency caesarean section.

Various authors had following results:

Sr. No	Author	Percentage
1	Pakaha Arora (1002)	(CPD)
1	Raksila Afora (1992)	44.42 %
2	Flabila Siligilai (1992)	40.90 %
3	Kamlesh Yadav (2000)	11.36 %
4	Chhabra S. (2006) ^[24]	43.19 %
5	Present study	39.62 %

In present study results are comparable with Prabha Singhal i.e. 40.90 %. Results of other authors are also fairly comparable but Kamlesh Yadav had lower incidence as very less number of cases were studied.

2) Foetal distress:

Foetal distress was diagnosed when the abnormalities like bradycardia, tachycardia, or any irregularity noted or meconium stained liquor seen.

The rate of caesarean sections for foetal distress has increased from 1 % in 1978 to 6 % in 1984 (Shiono et al 1987)

Electronic foetal monitoring was responsible for this increase in caesarean section without any decrease in perinatal mortality. In present study 14.15 % cases had to undergo repeat caesarean section for foetal distress.

Other authors had following results:

Goswami (1980)^[25] – 11.1 % Shailesh Kore (1996) – 25.58 % Kamlesh Yadav (2000) – 22.72 % Vardhan Shakti (2006) – 50.0 %

In the present study, the results are comparable with Goswami i.e. 11.1 %

3) Previous 2 caesarean sections:

Flamm et al (1984) concluded that more than one previous caesarean section was contraindication to trial of labour.

In present study repeat caesarean section was done in 6.60 % cases with

previous 2 caesarean sections as trial for vaginal delivery was not recommended.

Prabha Singhal (1992) had also done elective repeat C.S. in 6.81 % cases and no trial was given. Our incidence is comparable with this study.

D.S. Shah et al (1996) ^[26] achieved 64.29 % success rate in cases with Previous 2 caesarean sections when trial of scar was given in them under strict supervision of senior consultant and he made a new dictum for previous 2 C.S. "TWICE A C.S. ALWAYS A PLANNED MANAGEMENT"

4) Bad obstetric history (BOH):

Cases with BOH have undergone caesarean section to avoid the risk of perinatal mortality during vaginal delivery due to any complications.

In present study 4.7 % cases had undergone repeat caesarean section because of bad obstetric history.

Other studies show following results:

- Goswami & Gogoi (1980) - 1.3 %

- Raksha Arora (1992) – 1 %

In present study the incidence is higher as compared with above authors as patients are not supervised regularly & to reduce perinatal mortality.

5) Malpresentations:

Case & associates (1971) were against vaginal deliveries in breech presentation. In present study transverse lie & breech presentation was indication in 4.71 % cases.

Kamlesh Yadav et al (2000) reported 9.09 % incidence of repeat C.S. in cases with malpresentation as an indication.

In present study 53 % cases had undergone repeat caesarean section, 42 % cases needed emergency caesarean section & 11 % cases underwent elective caesarean section. In one case subtotal hysterectomy was done which was diagnosed as rupture uterus.

Prabha Singhal (1992) had 0.56 % incidence of subtotal hysterectomy, the patient of scar rupture was admitted as an emergency.

Foetal outcome in present pregnancy

Foetal mortality is more in caesarean section due to prematurity but now there has been decline in mortality rate as foetal maturity is confirmed by ultrasonography.

Patients with previous caesarean section undergone an elective caesarean section around 38 weeks have increased perinatal mortality observed by Gibbs.

Prabha Singhal (1992) observed 3 % perinatal mortality and said that although the appropriate use of C.S. is associated with a significant decrease in perinatal mortality and morbidity it results in the post caesarean pregnancy. Shailesh Kore et al (1996) observed 9 % in vaginal delivery & 4.4 % in C.S.

In present study perinatal mortality was 6.38 % in vaginal deliveries and 2.83 % in abdominal deliveries. Thus better outcome with abdominal delivery was seen on time because of monitoring and ultrasound facilities.

Sheshi Iyer et al (2001) found nil perinatal mortality and reduced rate of vaginal delivery after previous caesarean section in babies more than 3500 gms.

Success of trial of labour in relation Birth Weight-(Sheshi Iyer et al)

B.Wt. in gms	No. of babies	VBAC
≤ 3500	194	135 (69.6 %)
> 3500	10	3 (30 %)

In present studuy out of 94 who delivered vaginally 62.76 % babies had birth wt. ≥ 2500 gms & 30.85 % were < 2500 gms.

Remaining 53 % who underwent repeat caesarean section 68.87 % babies were ≥ 2500 gms & 28.3 % were < 2500 gms.

This shows that babies born by caesarean section have better outcome than vaginal delivery. Thus it is claimed that rising caesarean rates were aimed at bringing down perinatal mortality rate in cases of foetal distress, IUGR, breech & low birth wt. babies. This is possible due to careful monitoring in labour & availability of neonatal care.

Difficulties and complications in doing repeat caesarean section

The major difficulties while doing repeat caesarean section were adhesions between omentum, peritoneum and bladder i.e. 15.09 % cases. Difficulty in opening abdomen due to adhesions seen in 11.32 % cases.

Sandhyatara Mitra (1977)^[27] found five cases with intra abdominal adhesions after laparotomy done for scar rupture while Parikh (1963) found excessive adhesions in classical caesarean section.

Uterine dehiscence is defined as incomplete separation of uterine scar without bleeding or extrusion of foetus into abdominal cavity. In present study, partial dehiscence of scar seen in 5.66 % cases during repeat C.S., while in study by Sheshi Iyer (2001) the incidence of scar dehiscence during spontaneous vaginal delivery was 1.44 % and it was 0.5 % in the study by Vardhan Shakti et al (2006).

It is said that dehiscence rate is found more in repeat caesarean section because of direct observation, which is not possible after vaginal delivery.

Uterine rupture is complete rupture of scar, separation with bleeding & extrusion of foetus. Incidence of scar rupture is decreasing because classical is absolute now days.

CONCLUSION

The maternal mortality is almost uncommon in modern obstetrics due to practice of lower segment transverse caesarean section. No definite means are available to detect the integrity of scar antenatally. So the threat of scar rupture & also the risk of prematurity should be compared before deciding the mode of delivery in every individual case.

Mode of delivery should be decided depending upon the previous indication, type of scar, maturity of foetus and any associated maternal complications.

To reduce overall caesarean section rates & prevent repeat caesarean section, vaginal delivery should be anticipated in favourable cases.

Vaginal delivery is much safer than caesarean section as there are fewer complications with less maternal morbidity & mortality.

An attempt for VBAC is well justified for post caesarean pregnancies with non-recurrent indications. Screening for this should preferably begin at antenatal booking itself to minimize the associated risks. Proper selection, appropriate timing and suitable methods of induction with close supervision by competent staff are the key factors to achieve greater degree of success.

REFERENCES

- Nirmala Pandey, Chanchal Sharma, Suman Singhvi. Maternal and fetal outcome in previous caesarean section. Obstet. & Gynaecol. Today 2002; 7: 144-146
- 2. B.K. Mahajan. Methods in Biostatistics 6th edition.
- 3. Prabha Singhal. Labour Following Previous Caesarean Section. J obst & gyn India 42: 43-46, 1992.

- Flamm B.L. Once a cesarean always a controversy. Obst & gyn 90: 312-15, 1997.
- Shailesh Kore, Sudha Nair, Rahul Mayekar, V.R. Ambiye. Vaginal Delivery After Cesarean Section. J obst & gyn India 46:328-33, 1996.
- Kamlesh Yadav. Outcome of Labour Following Previous Lower Segment C.S. J obst & gyn India 50: 52-53, 2000.
- Mara J. Dinsmoor, Ellen L. Brock. Predicting Failed Trial of Labour After Primary Csarean Delivery. Obst & Gyn 103: 282-86, 2004.
- 8. MJA Turner, G Agnew, H Langan. Uterine rupture and labour after a previous low transverse C.S. Br. J obst & gyn 113: 729-32, 2006.
- Carolyn M. Zelop et al. Effect of previous vaginal delivery on the risk of uterin rupture during a subsequent trial of labour. Am J obst & gyn 183: 1184-86, 2000.
- 10. George A. Macones et al. Maternal complications with vaginal birth after cesarean delivery: A multicenter study. Am J obst & gyn 193: 1656-62, 2005.
- 11. George A. Macones et al. Can uterine rupture in patients attempting vaginal birth after cesarean delivery be predicted? Am J obst & gyn 195: 1148-52, 2006.
- 12. William A. Grobman et al. Outcomes of Induction of Labor after One Prior Cesarean. Obst & Gyn 109: 262-69, 2007.
- Riva H. L. & Teich J. C. vaginal delivery after caesarean section. Am J obst & gyn 81: 501, 1961.
- 14. Meehan F., Moolgaonkar A, et al. Vaginal delivery under caudal analgesia after C.S. & other major uterine surgery. Obst & gyn Br. Med Journal.

- 15. Barbara Case Corcoran, Sir Norman Jeffcoate. Caesarean Section and its place in modern obstetrics. Br. J. obst & gyn 78:203, 1971.
- 16. Prabha Singhal- Role of Oxytocin in Cases of Previous Caesarean Section. J obst & gyn India 42: 155-60, 1992.
- 17. Sheshi Iyer Pushp R. Handa, Shobhan B. Basu. Delivery After One Previous Caesarean Section-One Year Prospective Study. J obst & Gyn India 51: 51-54, 2001.
- Anjoo Agarwal, Hem Prabha Gupta, Seema Anand, Kalyani Das. Vaginal Birth after Caesarean- A Partographic Analysis. J Obst & Gyn India 52: 85-89, 2002.
- Cosgrove R. Management of pregnancy & delivery following caesarean section. J.A.M.A. 145: 184, 1951.
- 20. Gibbs C. E. Planned vaginal delivery following caesarean section. COG 23: 507, 1980.
- 21. Raksha Arora, P. Rajaram Asha, O. Josephine. Outcome of Post

Caesarean Pregnancy in a Tertiary Institute in South India. J Obst & Gyn India 42: 334-39, 1992.

- 22. Vardhan Shakti et al. Vaginal Birth After Caesarean Delivery. J Obst & Gyn India 56: 320-23, 2006.
- 23. William A. Grobman et al. Development of a Nomogram for Prediction of Vaginal Birth After Cesarean Delivery. Obstetrics & Gynecology 109: 806-812, 2007.
- 24. Chhabra S, Arora G. Delivery in women with previous caesarean. Section. J Obst & Gyn India 56: 304-307, 2006.
- 25. S.N. Goswami, M.P. Gogoi. Post-Caesarean Pregnancy and Labour. (An analysis of 110 cases) J Obst & Gyn India 32: 61-67, 1980.
- 26. D.S.Shah, A.U. Mehta, Rajesh Gondalia. "Twice A Cesarean, Always A Cesarean ???" J Obst & Gyn India 46: 770-74, 1996.
- 27. Sandhyatara Mitra. Outcome of post caesarean section at term. J Obst & Gyn India 38: 966, 1978.

How to cite this article: Chaudhari DR, Shinde SM. Clinical profile and outcome of labour in cases following previous caesarean section. Int J Health Sci Res. 2012;2(9):1-12.
