" A ONE YEAR DESCRIPTIVE STUDY OF OBSTETRIC AND FETAL OUTCOME OF POST CAESAREAN PREGNANCY AT K.L.E.S HOSPITAL, BELGAUM"

By

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DISSERTATION

SUBMITTED TO
KLE UNIVERSITY, BELGAUM
KARNATAKA
IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF SURGERY
IN
OBSTETRICS AND GYNAECOLOGY

Under the Guidance of

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MAY – 2009

KLE UNIVERSITY, BELGAUM, KARNATAKA

DECLARATION BY THE CANDIDATE

I hereby declare that this dissertation entitled **"A ONE YEAR DESCRIPTIVE STUDY OF OBSTETRIC AND FETAL OUTCOME OF POST CAESAREAN PREGNANCY AT K.L.E.S HOSPITAL, BELGAUM"** *is a bonafide and genuine research work carried out by me under the guidance of* **Dr. B. R. NILGAR**$_{\text{M.D.}}$ *Professor, Department of Obstetrics & Gynaecology, Jawaharlal Nehru Medical College, Nehru Nagar, Belgaum-590010.*

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ACKNOWLEDGEMENTS

No dissertation can be completed without the help of many individuals.

It is with great privilege, that I express my most humble gratitude to my teacher and guide ***Dr. B.R. Nilgar*** *M.D., Professor, Obstetrics and Gynaecology, J. N. Medical College, Belgaum for his guidance, able supervision, and valuable suggestions throughout the study. He has made me realize that there is no substitute for hard work and ensured that I left no stone unturned in the completion of this dissertation. I consider myself fortunate to have worked under him and benefited from his vast experience and immense knowledge.*

It gives me pleasure to express my gratitude and sincere thanks to ***Dr.B.R.Desai****M.D., Professor and Head, Department of Obstetrics and Gynaecology, J.N.Medical College, Belgaum.*

Hereupon, I also extend my gratitude to ***Dr. M.K. Swamy****M.D., Professor,* ***Dr.(Mrs.)J.C.Shravage*** *M.D.,D.G.O., Professor,* ***Dr. (Mrs.) S.M. Kodliwadmath*** *M.D., Professor,* ***Dr.M.B.Bellad****M.D., Professor,* ***Dr. Shobhana Patted****M.D.,D.G.O.,D.N.B. Professor,* ***Dr.Kamal Patil****M.D., Professor,* ***Dr. M.C. Metgud****M.D., Associate Professor,* ***Dr. Anita. Dalal****M.D., Assistant Professor,* ***Dr. Yeshita Pujar****M.D., Associate Professor,* ***Dr. Hema A. Dhumale****M.D., Assistant Professor,* ***Dr. Bhavana Sherigar****M.D , Assistant Professor,* ***Dr.Geeta Durdi****M.D., Assistant Professor,* ***Dr. B. M. Kolli****M.D., Assistant Professor,* ***Dr.Sasmita Das****M.D. , Assistant Professor,* ***Dr. Mahesh Koregol****M.D. , Assistant Professor,* ***Dr. Pramila Koli*** *D.N.B., Assistant Professor,* ***Dr. Sheetal Jawalkar*** *M.D, Assistant Professor,* ***Dr.Sunanda M*** *M.D., Assistant Professor, Department of Obstetrics and Gynaecology, J.N.Medical College, Belgaum for their valuable guidance and encouragement.*

I am grateful to ***Dr. V.D. Patil****M.D., D.C.H., Principal, J.N.Medical College, Belgaum, and* ***Dr. M.V. Jali****M.D., Medical Director and Chief Executive, K.L.E.Society's Dr. PK Hospital and Medical Research Centre, Belgaum, for permitting me to utilize the*

facilities of the medical college and K.L.E.Society's Dr. PK Charitable Hospital and Medical Research Centre, Belgaum to carry out my study.

I would like to thank ***Mr. Dhareshwar*** ***M.Sc., M.Phil.,*** *Professor of statistics in Gogte Commerce College, Belgaum, for his valuable help in the statistical analysis of the study.*

I am indebted to ***my parents*** *for their constant love and affection, support, faith and appreciation, they have shown me throughout the years. I am grateful to them for helping me to realize my dreams and make me what I am today, by always being there for me and being my pillar of strength. I would also like to thank my brother* ***Dr.Anand Mathew*** *and sister* ***Dr. Priyatha Anand*** *for their understanding and love.*

I am grateful and cherish the support my colleagues and friends, especially ***Dr.Jins John*** *and* ***Dr. Namrata Kulkarni****, gave me throughout the period of my dissertation.*

This dissertation would not have been possible without the mental support and constant motivation of my soulmate and wife, ***Mrs. Tina John****, who spent endless hours to ensure that I complete my work on time.*

I would like to acknowledge the tireless work of ***Mr. Mahesh Desai*** *of* **Malta Computers** *for excellent data processing and completion of this manuscript.*

Most importantly I thank the backbone of this study, ***my patients****, for their co-operation and participation in this study.*

Last but not the least, I express my ever lasting gratitude to the Almighty God, for protecting me and showing me the right path through this gratifying task.

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ABBREVIATIONS

ACOG	American College of Obstetricians and Gynecologists
CPD	Cephalopelvic disproportion
CS	Caesarean Section
ERCS	Elective repeat caesarean section
HIE	Hypoxic ischemic encephalopathy
IUGR	Intra uterine growth restriction
LSCS	Lower segment caesarean section
NICU	Neonatal intensive care unit
OT	Operation theatre
PGE_2	Prostaglandin E_2
PROM	Premature rupture of membranes
RCOG	Royal College of Obstetricians and Gynecologists
RCT	Randomized Controlled Trial
RDS	Respiratory Distress Syndrome
UTI	Urinary tract infection
VBAC	Vaginal birth after caesarean delivery
Vs	Versus

ABSTRACT

BACKGROUND & OBJECTIVE:

With the sky rocketing caesarean section rates an increasing number of women face the issue of mode of delivery in their current pregnancy. There are conflicting reports regarding the safety of a trial for vaginal birth after caesarean delivery (VBAC) in terms of uterine rupture and concern about, maternal and perinatal morbidity. The purpose of this study was to evaluate the obstetric and fetal outcomes of patients presenting at term with a history of previous LSCS.

METHODS:

A one year prospective observational study was conducted where in all patients who had a term pregnancy with a history of prior LSCS were included in the study after obtaining their consent for participation. The obstetric and fetal outcomes of these patients in the present pregnancy were noted and tabulated. A descriptive analysis of these outcomes was carried out.

RESULTS:

320 patients at term, with a history of previous LSCS were studied. Of these, trial for a VBAC was attempted by 182 patients and 46.70% had a successful VBAC. 131 patients underwent an elective repeat caesarean delivery. 65.62% of the patients who had a history of previous vaginal delivery(s) had a successful VBAC. Out of 18 patients who were induced with PGE_2 gel, only 22.22% delivered vaginally. Scar dehiscence was seen in 2.72% of the patients who opted for a trial for VBAC. Perinatal morbidity was higher in cases of repeat caesarean delivery than in those who had a successful VBAC

(12.12% Vs 0 percent). Maternal complications were also higher in patients who had a repeat LSCS compared to those who had a successful VBAC (12.76% Vs 2.74%).

CONCLUSION:

With an increase in the proportion of patients with a history of previous LSCS, it is essential for health care institutions to have proper antenatal counseling regarding VBAC and a well defined management protocol in place in an effort to increase the number of VBACs and bring down the overall caesarean rates. Patients with a history of prior vaginal delivery have an increased likelihood for a successful VBAC. A successful VBAC is associated with a lower perinatal and maternal morbidity than repeat caesarean delivery, and this is relevant for counseling women about their choices after a caesarean delivery.

Key Words:

Previous LSCS; Post caesarean pregnancy ; VBAC; Maternal outcomes; Fetal outcomes;

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INTRODUCTION

Incidence of primary caesarean section has increased multifold over the last 20 years. As a result, an increasing number of women face the issue of mode of delivery in their subsequent pregnancies.[1,2,3]

There are few issues in modern obstetrics that have been as controversial, as the management of the woman with a prior caesarean delivery.

Cragin's dictum of "once a caesarean always a caesarean" contributed to a 30–50% rise in caesarean rates in the United States, till the 1980s.[4,5] The warning was given when the caesarean rate was under 2%, sections were usually done for severe cephalopelvic disproportion, and the classical (vertical) incision on the muscular body of the uterus was almost universally used, which is hardly proposed today.

A series of studies in the 1980s reported the relative safety of attempting vaginal birth after caesarean delivery (VBAC).

No randomized controlled trials have compared the results of routine repeat caesarean section with those of planned vaginal birth for women who have had a previous caesarean section and this may remain an unrealistic aspiration.[6] In the absence of such trials, the best available data on the relative safety of a planned vaginal birth after caesarean come from observational prospective cohort studies. In these studies, in which the proportion of women who undertook a planned vaginal birth after previous caesarean varied from 20 to 80%, successful vaginal birth

occurred in 67 to 84%, averaging about 80% of the women who made the attempt. In the series for which total data are available for both women who had elective caesareans and those who had a planned vaginal birth after caesarean section, well over half of all women with a previous caesarean gave birth vaginally.[7]

Maternal mortality and serious morbidity are fortunately very rare, and for this reason estimates of their frequency are imprecise. A large meta-analysis showed maternal mortality of 2.8 per 10 000 for women undergoing planned VBAC, and 2.4 per 10 000 for women having an elective caesarean. Uterine dehiscence or ruptures occur in less than 2% of planned VBAC, the same proportion as is seen among women who have routine repeat caesareans. Most of these are asymptomatic and of no clinical importance. Perinatal mortality and morbidity rates were similar with planned vaginal birth after caesarean and elective repeat caesarean section in these studies.[8]

The most important event because of which obstetricians still hesitate to attempt planned VBAC is the uterine scar integrity and hence the terminology "Trial of scar". Because repeat caesarean deliveries are performed largely to benefit the neonate, clinicians may often overlook maternal complications resulting in significant morbidity and mortality as a result of the repeat surgeries.[9] The choice of VBAC over planned repeat caesarean section, like virtually every other medical choice, involves the balancing of risks & benefits. One point is clear though, "once a caesarean, always a hospital delivery". [10]

The purpose of this study was to evaluate the obstetric and fetal outcome of labour in cases of previous caesarean section in our teaching hospital.

OBJECTIVES

To study the obstetric and fetal outcome in present pregnancy of patients with a history of prior caesarean section.

Factors studied were: -

1. Route of delivery.
2. Incidence of vaginal delivery following LSCS.
3. Incidence of scar dehiscence /scar rupture.
4. Maternal mortality and morbidity determined by any one or more of the following: Haemorrhage, blood transfusion requirement, viscus injury, wound infection, endometritis, hysterectomy and thromboembolism.
5. Fetal outcome (as a consequence to intrapartum events): Admission to neonatal intensive care unit (including reason for admission), first and fifth minute Apgar score, perinatal mortality.

REVIEW OF THE LITERATURE

HISTORICAL ASPECTS

Caesarean section is one of the oldest operations in surgery with its origin lost in ancient mythology.

J. H. Young in his monogram on the history of caesarean section, published in 1944, reached to the conclusion that it is quite impossible to ascertain exactly when operation of caesarean section was first performed and whether on a living woman or postmortem.[11]

The origin is obscure.

Caesarean section probably derives its name from the codification "Lex Cesarea", a Roman law promulgated in 715 B.C., which was continued even during J. Caesar's reign. The law provided for either an abdominal delivery in a dying woman with a hope to get a live baby or to perform postmortem abdominal delivery for separate burial. [12]

Another belief is that it is derived from the Latin word "Caedere" meaning to cut or "Caesura" meaning a Cutting or a Pause. Section is derived from the word "Seco" which also means Cut. Hence, as the term caesarean section seems tautological, it is preferable to use the term caesarean delivery.[12]

Jacob Nufer the German Gelder in 1500, attempted the first abdominal delivery on his wife by opening the abdomen with razor and the uterus was unsutured.

Later his wife normally gave birth to two children. This gives an idea that practice of vaginal delivery following caesarean section was present since ancient times.

In 1619, Trautman performed the first authentic case on a living patient who unfortunately died on the third post operative day.

According to Rucker, and Rucker the first successful operation was performed by Bennett on his wife in 1794.

Van Ritgen of Giessen, Germany in 1821 attempted to perform first extra peritoneal operation and thus prevented peritoneal contamination. Unfortunately this operation was unsuccessful and the patient died.

Later on extra peritoneal approach was reintroduced in two ways -

The lateral approach employed by Von Ritgen (1821) of Giessen which was modified by Gaillard Thomas (1831) of New York and later on by Latzko and Doderlein, consists of distension of bladder with 200-300 ml of sterile water containing methylene blue, abdomen opened by left paramedian incision, rectus sheath is cut and transversalis fascia overlying the distended bladder is exposed. Over the left lateral side of bladder this fascia is incised and enlarged and bladder is drawn to the right till the lower segment is exposed. Incision is taken over the lower segment and child is extracted.[13]

The median approach was suggested by Dr. Physick in 1824 and conveyed to Dewees (1768 - 1841) which was modified by E.G. Waters in 1940. In this approach

lower segment of uterus is reached by dissecting an upper and a lower flap. The upper flap, consisting of peritoneum of uterovesical fold was pushed upwards while lower flap with bladder attached is dragged downwards off the anterior wall of lower segment and cervix. Through this cleft the lower segment is reached.[14]

In 1876, Porro, an Italian obstetrician introduced a new modification. He extracted the fetus and placenta and then amputed the body of the uterus and its appendages after first controlling the bleeding by surrounding the vessels with a cintrast's contractor, an instrument resembling the large nasal snare. Porro's operation became obsolete and the basis of caesarean hysterectomy was developed. [15]

Jean Le Bas in 1769 was first to suture the uterine wound, but this was done primarily for hemostasis before Porro advocated hysterectomy. But later on Kehrer (1881) and Max Sanger (1882) adopted and proved the efficacy.[12]

By the turn of the 19th century, maternal mortality came down to 6 - 10% from 70 - 80 % in 1870.

Maximum advances were made in the 20th century - In the field of anesthesia, surgical techniques, asepsis and pharmacology. In 1912, Kronig introduced Trans peritoneal lower segment caesarean delivery, where the lower portion of the uterus was opened through midline vertical incision and child extracted by forceps whenever required.[12]

In 1926, Kerr made a major change; he advocated the transverse lower uterine incision instead of vertical.

In 1940, Kocher attempted to substitute for vertical incision. Baudique advocated transverse incision. [16]

In 1960, Pfannensteil's and modified Pfannensteil's incision were devised. Newer techniques like Misgav Ladachs caesarean section consists of a transverse and modern Joel Cohen incision and suturing the uterus in one layer and non closure of visceral and parietal peritoneum to have shorter operation time, less blood loss and fewer adhesions.

An operation initially utilized to save maternal life is today increasingly employed to save the life of the fetus.

REGARDING VBAC

The ever increasing liberalization of indications for a primary caesarean section and improved methods of antenatal fetal monitoring have stimulated renewed interest in vaginal delivery after caesarean section.

Planned VBAC for previous Lower Segment Caesarean Section (LSCS) was not a usual practice in the field of obstetrics till the beginning of the 20th century, as it was overshadowed by Cragin's dictum. For many decades, a scarred uterus was believed to contraindicate labour out of fear of uterine rupture.

The year 1978 was a milestone in the history of management of pregnancy in patients with a history of prior caesarean delivery. A study in 1978 from the University of Texas at San Antonio reported that, subsequent vaginal delivery was safely attempted in 83 percent of patients with prior caesarean delivery.[17]

A series of studies followed in the later part of the century, encouraging a planned VBAC for patients with a documented previous lower transverse caesarean section.

A study in 1980 selected 207 patients with single previous LSCS for planned VBAC over a 2 years period. Patients with any recurrent obstetric or medical reason requiring repeat caesarean delivery were excluded from the study. Also patients with any amount of cephalopelvic disproportion (CPD) were excluded. In this study 84.5% delivered vaginally. There were no deaths associated with planned VBAC and, maternal and fetal morbidity was negligible. It resulted in 27.9% decrease in the repeat caesarean section (C.S) rate over 1-2 years. There was only a single case of uterine scar separation. At the conclusion of 2 years of obstetrical evaluation it was found that in properly selected patients, a VBAC constitutes the best and safest form of obstetric management.[18]

In another prospective study in 1983, 162 patients were selected for a planned VBAC, of which 62.34% delivered vaginally. There was scar dehiscence /rupture of 0.7% among the patients who underwent VBAC. 25 patients received oxytocin for augmentation of labour. But the author could not give a statement of safety for the use of oxytocin in those patients because of the small number of subjects receiving the drugs.[19]

In 1987, a year long, prospective study in which indication for VBAC was liberalized, included 272 patients selected to undergo VBAC of which 76.5%

delivered vaginally. One uterine rupture (0.6%) occurred in patients with single previous LSCS.[20]

Another prospective study of previous LSCS patients, in 1990, revealed that 81% had successful VBAC and 0.8% experienced true uterine rupture. These results concluded that a planned VBAC after previous LSCS is a safe and desirable option.[21]

In 1993, a retrospective study to evaluate the incidence of vaginal delivery with previous LSCS in addition to the incidence of complications like uterine rupture or uterine scar dehiscence, showed that 64% of patients had vaginal delivery, 0.8% had uterine rupture & 3.3% had scar dehiscence.[22]

The Maternal Fetal Medicine Units (MFMU) Network, in a prospective, 4 year observational study from 1999 to 2002 compared the outcomes of nearly 18,000 women who attempted VBAC with those of more than 15,000 women who were delivered by elective repeat section. 73.4% who underwent VBAC, delivered vaginally and 0.7% who underwent VBAC had symptomatic uterine rupture (124/17,898). They concluded that VBAC is associated with greater perinatal risk than elective repeat caesarean section.[23]

A study on the safety of VBAC, in which 702 patients with a history of one previous LSCS were subdivided into a group with no previous vaginal delivery, and those with a previous vaginal delivery, found that vaginal delivery occurred more often in those with no history of previous vaginal delivery (87.7% Vs 79.2%). The authors concluded that women who have had a CS should strongly consider a VBAC for subsequent pregnancies. [24]

In a more recent study published in February 2006, an 80% successful VBAC among 841 patients with previous single LSCS was reported. Uterine rupture was observed in one woman, 18 hours after vaginal delivery. There was no difference in major or minor maternal morbidity. There was no serious neonatal morbidity. The study concluded that, with a well defined protocol, VBAC seems to be as safe for the mother and infant as planned caesarean delivery and the hospital stay shorter.[25]

VBAC in women with more than one prior LSCS

Women who have had two previous low transverse caesarean deliveries have traditionally been considered candidates for a trial of labour. However, the few studies that address this issue report a risk of uterine rupture ranging between 1% and 3.7%.[26] In the only study that controlled for other potential confounding variables, the risk of uterine rupture during labour was nearly 5 times greater for women with 2 previous caesarean deliveries when compared with women who had 1 previous caesarean delivery.[27] Women with a previous vaginal delivery followed by a caesarean delivery were only approximately one fourth as likely to sustain uterine rupture during a trial of labour and hence for women with 2 prior caesarean deliveries, only those with a prior vaginal delivery were suggested to be considered for a VBAC. [28]

Induction of labour in patients for VBAC

Spontaneous labour is more likely to result in a successful VBAC rather than labour induction or augmentation.[29] Recent large studies have shown an increased risk of oxytocin use and uterine rupture. Considerable evidence points towards increased

likelihood of uterine rupture with the use of prostaglandins for cervical ripening in patients with a history of previous caesarean delivery.[30,31] Review showed that the rate of uterine rupture during labor induced with prostaglandin was 15 fold higher than that of women electing to have a repeat caesarean delivery.[32,33] Likewise, misoprostol has been shown to be associated with an unacceptably high rate of uterine rupture in women with a previous caesarean delivery.[34] Hence, the use of prostaglandins for induction of labour in such women has suggested to be discouraged.

METHODOLOGY

Study design: Observational study

Source of Data : The study population consisted of patients with a history of previous caesarean section, who delivered in the present pregnancy, at KLES Dr.Prabhakar Kore Hospital and MRC, Belgaum between 01.01.2007 to 31.12.2007.

Sample Size: This study included 320 cases of previous caesarean section who delivered in our hospital over a period of one year.

Inclusion criteria:

- All term patients with a history of prior LSCS.

Method

Management protocol of Department of Obstetrics at KLES Dr. Prabhakar Kore Hospital MRC, for patients with a history of prior LSCS was followed:

1. The high risk pregnant women were advised regular antenatal check up after confirmation of pregnancy and were advised admission to the hospital prior to their Expected Date of Delivery.

2. A detailed past obstetric history was taken or reconfirmed if she was a registered case which included:
   a. Indication, numbers, type and place of previous caesarean section.
   b. History of full term vaginal deliveries prior to or following previous caesarean section together with the birth weight of the babies.

c. History of complications associated with previous section such as requirement for blood transfusion, hematuria, incontinence of urine, prolonged catheterization suggestive of injury to bladder, puerperal sepsis following the caesarean section viz., foul smelling lochia, high spiky fever, wound infection and systemic infection, requiring prolonged hospitalization.

3. A general physical examination and systemic examination was carried out.
4. A perabdominal examination was done to ascertain the fundal height, lie, presentation and position of the fetus including fetal heart sounds.
5. Scar tenderness was elicited on admission.
6. Pelvic adequacy was checked for prior to counseling for a trial for VBAC

There was no place for trial of scar in cases of confirmed pelvic contraction. In the unregistered cases it was assessed at the onset of labour, by vaginal and bimanual examination. The points assessed were sacral curve, whether sacral promontory was reached or not, sacrosciatic notch, lateral pelvic walls, ischial spines and interspinous distance, subpubic angle, diagonal conjugate and transverse diameter of pelvic outlet.

7. Women with a prior history of one uncomplicated lower segment transverse caesarean section, in an otherwise uncomplicated pregnancy at term, with no contraindication to vaginal birth were given the option of a planned VBAC. Before an attempted vaginal delivery, patients were informed the risks, benefits, potential complications and alternatives to a trial for a VBAC. After acceptance by patients, each underwent a planned VBAC.

8. Patients with a history of more than one LSCS were taken up electively for a repeat caesarean section or on an emergency basis if they were in labour.

9. A single dose of PGE_2 (cerviprime) gel was used to induce labour in patients eligible for a trial for VBAC and who did not spontaneously go into labour at 41 completed weeks.

10. During labour, the previous history was checked and complete examination including general and perabdominal examination was done to check the position of the baby.
    a. Blood was sent for cross matching and kept ready in case of emergency as soon as patient went into labour.
    b. Intravenous line was established.
    c. Patients were carefully monitored during labour with regular checking of the vital signs like maternal pulse rate and blood pressure.
    d. Scar tenderness was looked for.
    e. Fetal heart rate was recorded half hourly.
    f. Cervical dilatation, effacement and station of the head were noted serially for progress of labour. Also character, duration and frequency of uterine contractions were monitored.
    g. Early signs of scar dehiscence such as hypotension, tachycardia, abdominal tenderness, fetal heart rate alteration, loss of station of presenting part,

palpation of fetal parts outside the uterus and symptoms such as acute abdominal pain and vaginal bleeding, were watched for.

h. Intrapartum fetal monitoring was carried out with the help of cardiotocography and fetal heart rate was detected by using ultrasound doppler principle.

i. Oxytocin was administered only if indicated and if required it was initiated at a rate of 0.5 to 1mu/min and increased till establishment of a satisfactory labour pattern, but not more than 2 mu/min.

   In the present study patients were monitored during labour by taking half hourly pulse, blood pressure, estimation of uterine contractions, scar tenderness and fetal heart sounds.

j. The "six hour rule" was observed in active labour, wherein planned VBAC was terminated after six hours of active labour, if vaginal delivery was not imminent.

   The outcome of delivery was then assessed.

After delivery:

As for other deliveries, the patients were monitored for 2 hours following vaginal delivery and required period following repeat section.

Subsequent complications and condition of the mother and baby till discharge from the hospital were studied.

All relevant patient details pertaining to the study were noted on the proforma (attached in annexure).

RESULTS

Table No. 1 : Incidence of previous LSCS patients

Total no. of deliveries from 1st Jan 2007 to 31st Dec 2007	**Total no. of cases with previous caesarean section at term**	**Incidence in %**
2243	320	14.27

The incidence of previous caesarean section cases is 14.27%

Table No. 2 : Registered versus unregistered previous LSCS cases

Type	No. of Cases	Percentage (%)
Registered	260	81.25
Unregistered	60	18.75
Total	**320**	**100**

81.25% patients were registered in KLES Dr. Prabhakar Kore Hospital and MRC, Belgaum. 18.75% were unregistered. Patients with at least three visits to the ANC clinic were included in the registered category, rest were grouped as unregistered.

Graph 1 : Registered versus unregistered previous LSCS cases

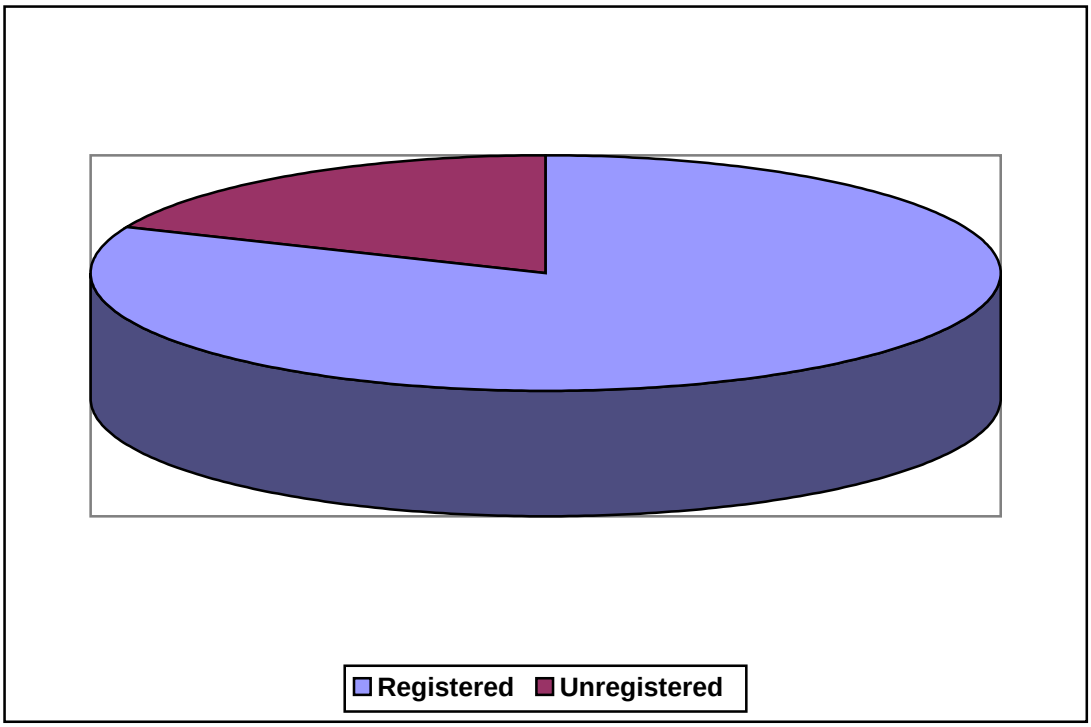


Table No. 3 : Outcome of present pregnancy

Outcome of present pregnancy	No. of Cases	%
Vaginal deliveries	85	26.56
Repeat caesarean deliveries	235	73.43

In the present study 26.56% of patients delivered vaginally, either spontaneously or assisted. 73.43% patients required a repeat caesarean section, most of which were elective repeat caesarean sections.

Graph 2 : Outcome of present pregnancy

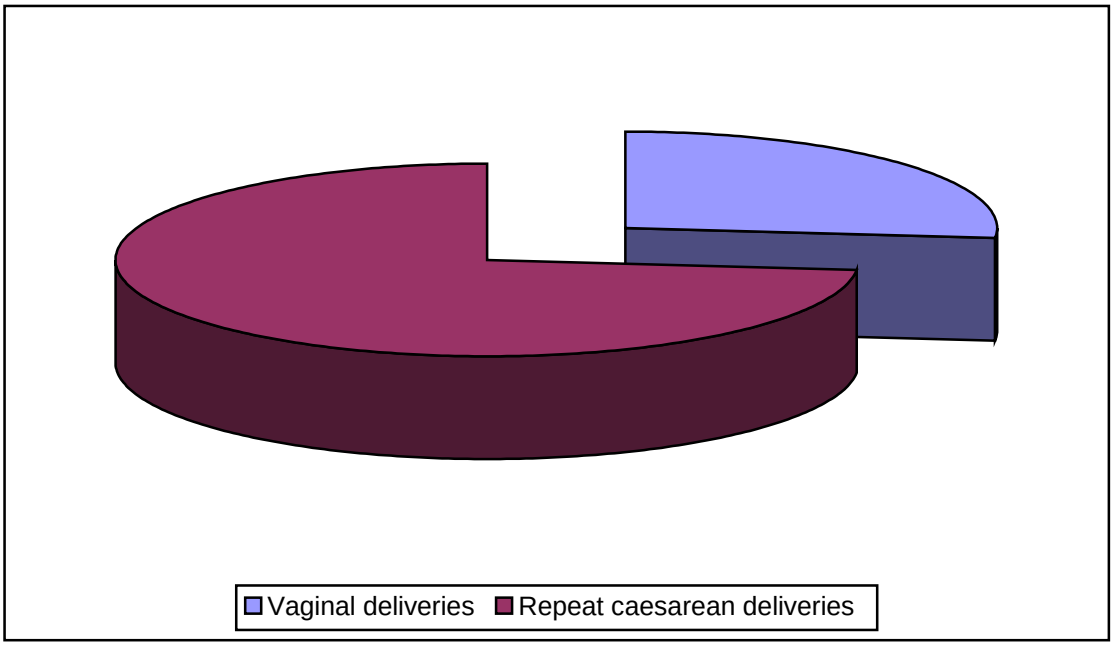


Table No. 4 : Outcome of trial for VBAC in present pregnancy

Outcome of trial of labour	No. of cases	%
Successful VBAC	85	46.70
Unsuccessful VBAC	97	53.30
Total no. of patients who had a trial for VBAC	**182**	**100**

In the present study, VBAC was tried in 182 cases, of which 46.70% of patients had a successful VBAC. 53.30% of patients who were given a trial for VBAC were posted for an emergency LSCS for various indications and hence had an unsuccessful VBAC.

Graph 3 : Outcome of trial for VBAC in present pregnancy

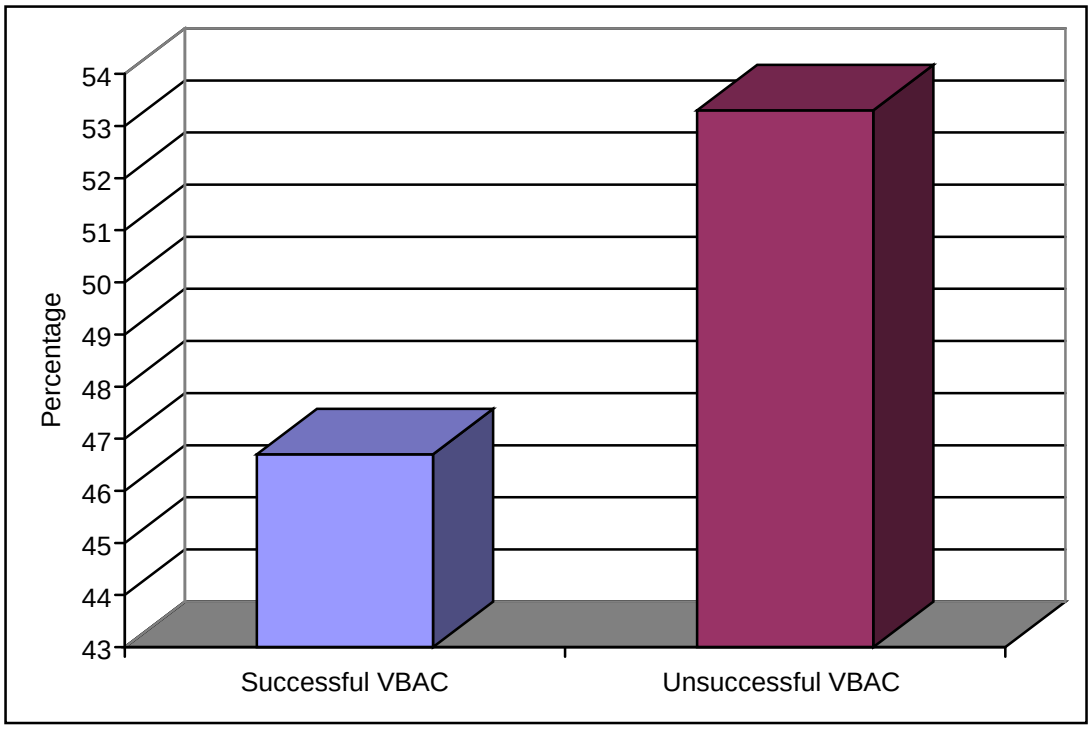
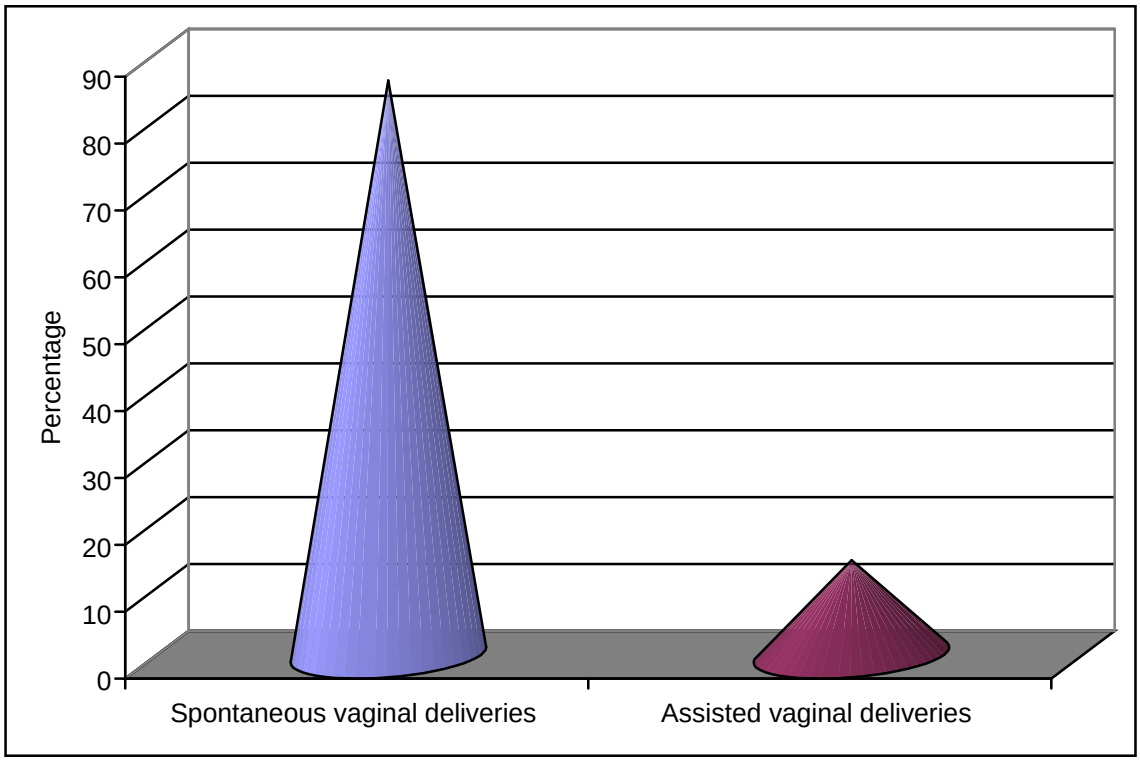


Table No. 5 : Mode of vaginal deliveries

Nature of vaginal deliveries	No. of cases	%
Spontaneous vaginal deliveries	73	85.88
Assisted vaginal deliveries	12	14.12
Forceps	5	41.66
Ventouse	7	58.33

Of the patients who had a successful VBAC, 85.88% delivered spontaneously and 14.12% had an assisted vaginal delivery. Forceps was applied in 41.66% of patients who had an assisted vaginal delivery and 58.33% of these patients had a ventouse assisted delivery.

Graph 4 : Mode of vaginal deliveries



Graph 4a : Assisted vaginal deliveries

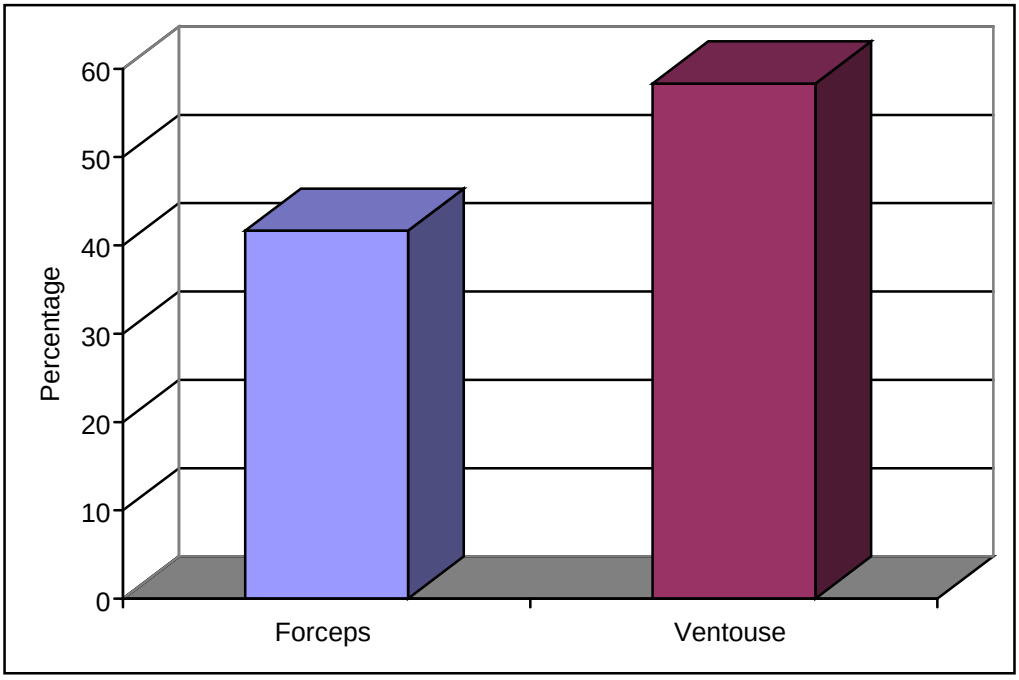


Table No. 6 : Mode of delivery after induction

	Mode of delivery	
No. of induced cases	**Vaginal (%)**	**Repeat LSCS (%)**
18	4(22.22)	14(77.78)

Out of the 18 patients, who were induced with PGE_2 gel 22.22% patients delivered vaginally and 77.78% patients had an unsuccessful VBAC.

Graph 5 : Mode of delivery after induction

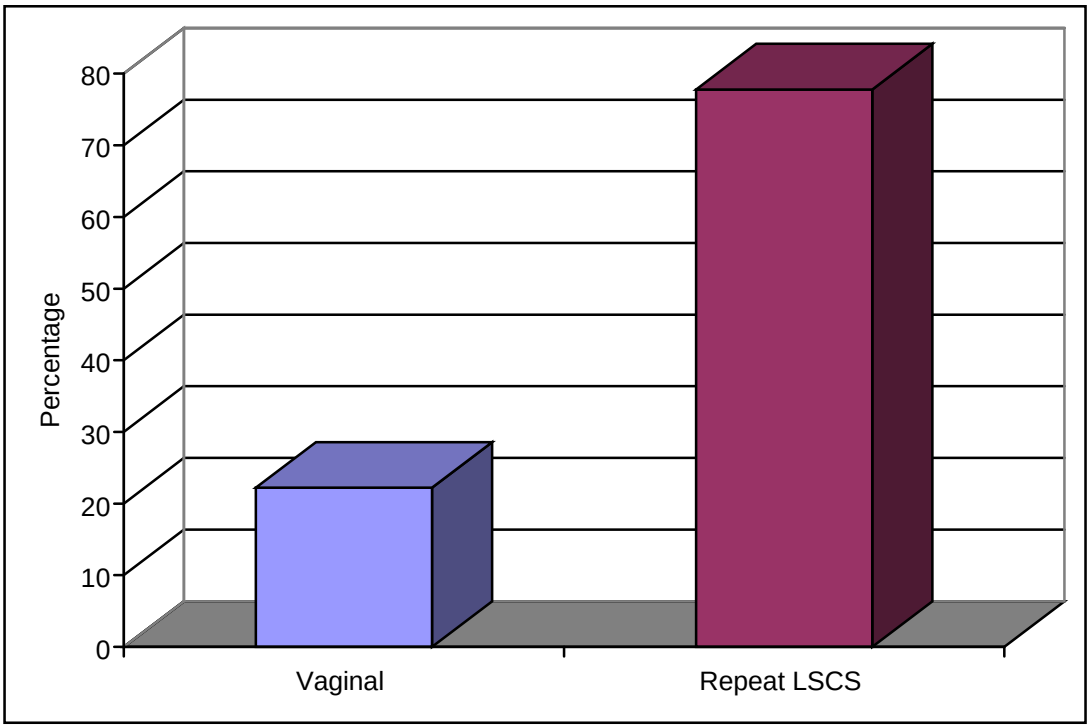


Table No. 7 : Present outcome and history of previous vaginal deliveries

	No. of cases	Vaginal delivery	Repeat LSCS
History of previous vaginal deliveries	32	21(65.62%)	11 (34.38%)
A. Prior successful VBAC	10	8(80%)	2(20%)
B. No prior successful VBAC	22	13(59.09%)	9(40.90%)
No history of previous vaginal deliveries	150	64 (42.66%)	86 (57.33%)
Total	**182**	**85**	**97**

Out of 32 patients who had a history of prior vaginal deliveries, 65.62% delivered vaginally in the present pregnancy. Out of these 32 patients, 10 had a history of prior successful VBAC, 80% of them had a successful VBAC in present pregnancy. This indicates that women with previous vaginal delivery(s) have a better chance for a successful VBAC.

Graph 6 : Present outcome and history of previous vaginal deliveries

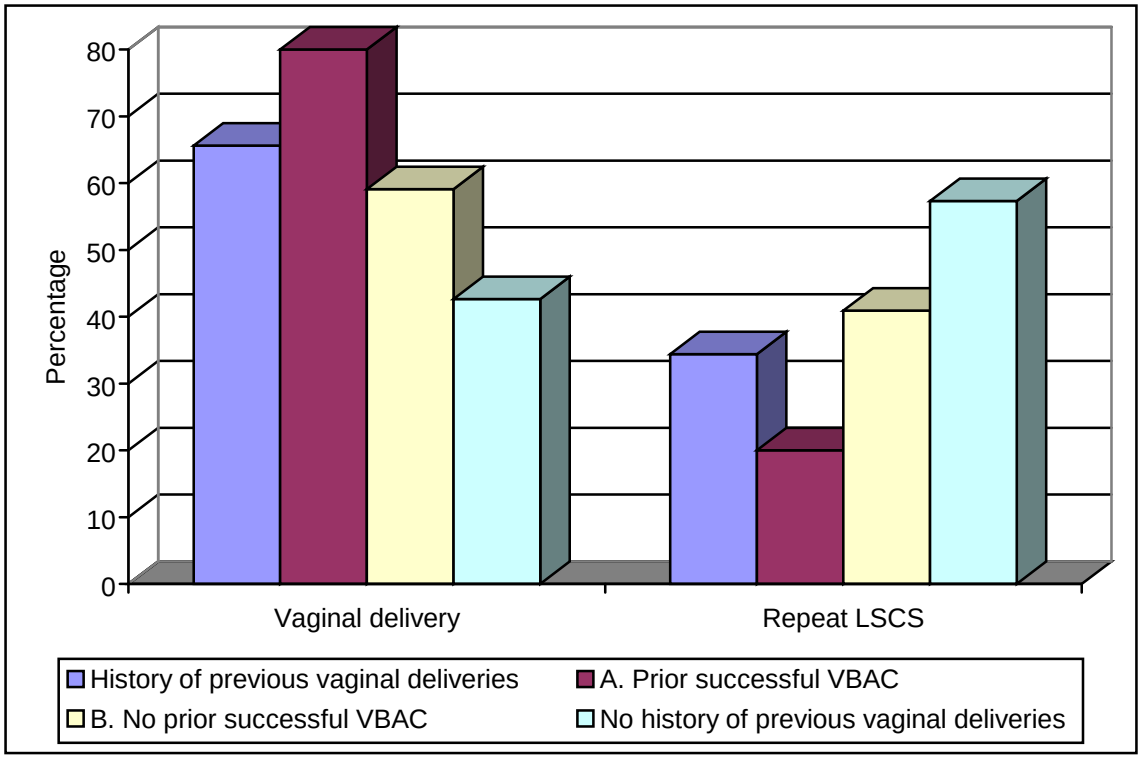


Table No. 8 : Emergency Vs Elective LSCS

Nature of LSCS	No. of cases	%
Emergency CS	104	44.25
Elective CS	131	55.74
Total	**235**	**100**

44.25% cases had an emergency LSCS and 55.74% cases were taken up for an elective LSCS, out of the repeat caesarean sections.

Graph 7 : Emergency Vs Elective LSCS

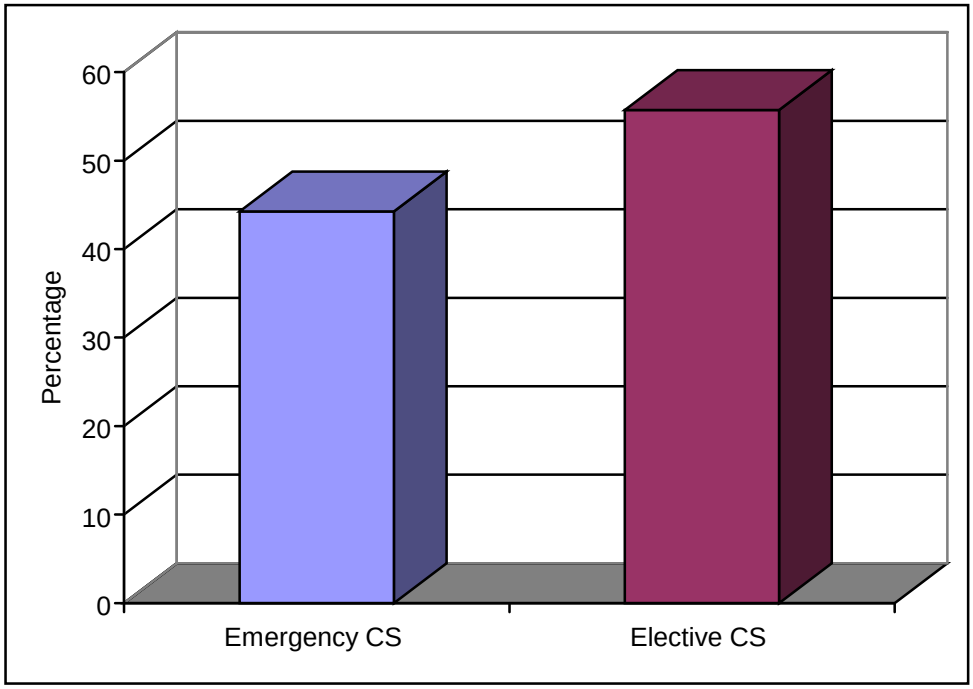


Table No. 9: Indications for repeat elective LSCS

Sr. No.	Indications	No. of cases	%
1	Not willing for VBAC	50	38.17
2	Previous two LSCS	28	21.37
3	Previous LSCS with no living issue	19	14.50
4	CPD	6	4.58
5	Breech	6	4.58
6	IUGR with oligoamnios	4	3.05
7	Previous LSCS with PROM	3	2.29
8	Central placenta previa	3	2.29
9	Transverse lie	3	2.29
10	Pre eclampsia	2	1.53
11	HIV positive	2	1.53
12	Eclampsia	1	0.76
13	Post maturity	1	0.76
14	Bad obstetric history	1	0.76
15	Poly amnios	1	0.76
16	Previous three LSCS	1	0.76

The commonest indication for an elective LSCS was unwillingness of the patient for a trial of VBAC inspite of being eligible and given an option for VBAC, which stood at 38.17% followed by 21.37% of patients who had a history of 2 prior LSCS. 14.50% of the patients taken up for an elective LSCS were, in view of a history of prior LSCS with no living issue. 4.58% of the patients in the above category were taken up for CPD. Other indications for an elective LSCS are as mentioned above and constituted 21.37% of the total number of elective LSCS.

Graph 8 : Indications for repeat elective LSCS

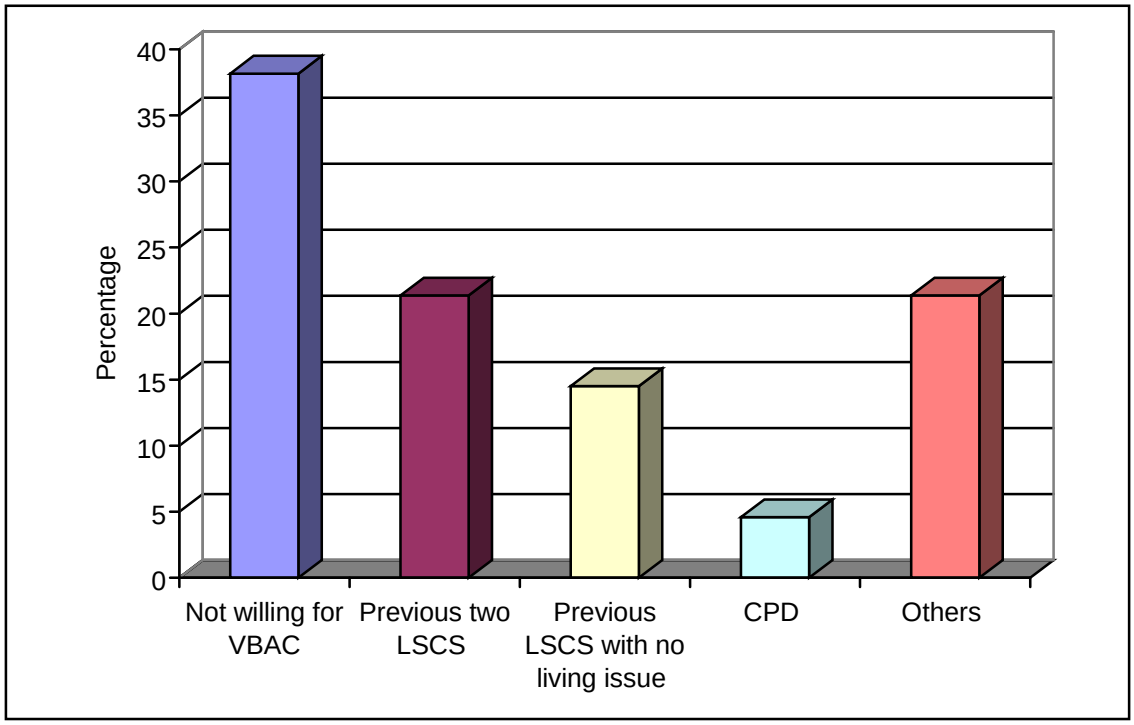


Table No. 10 : Indications for repeat emergency LSCS

Sr. No.	Indications	No. of Cases	%
1	Fetal distress	55	52.88
2	Non progress of labour	28	26.92
3	Failed induction	8	7.69
4	CPD	6	5.77
5	Scar dehiscence	4	3.85
6	Severe pre eclampsia	1	0.96
7	Breech in labour	1	0.96
8	Compound presentation	1	0.96

The commonest indication for an emergency LSCS was fetal distress at 52.88% followed by non progress of labour in 26.92% of the cases, and both these indications accounted for about 80% of the emergency caesareans.

Graph 9 : Indications for repeat emergency LSCS

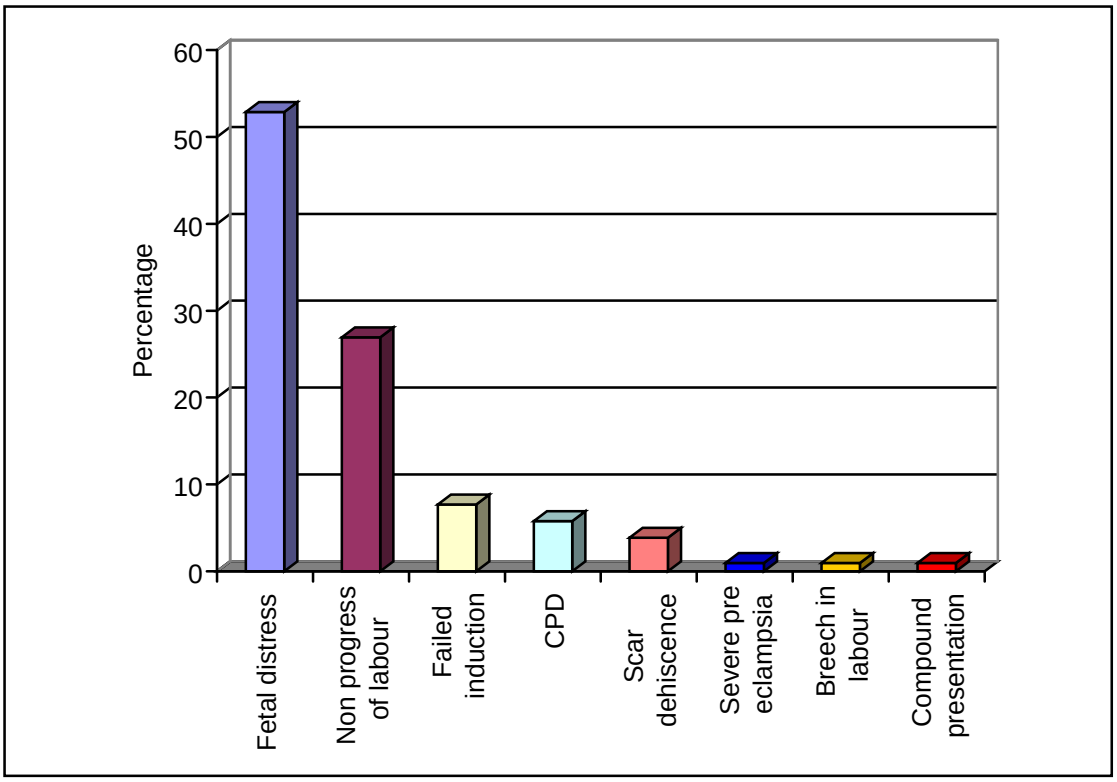


Table No. 11 : Difficulties encountered during repeat caesarean section

Difficulties while doing repeat CS	No. of cases	%
Difficulties in opening the abdomen due to adhesions	52	22.12
Adhesions between omentum, peritoneum and bladder	19	8.08
Difficulty in separation of bladder	23	9.79

Repeat LSCS was done in 235 cases, of which difficulty in opening the abdomen due to adhesions was encountered in 22.12% of the patients. Adhesions between the omentum, peritoneum and bladder was seen in 8.08% of the patients. Difficulty in separation of the bladder in was seen in 9.79% of the patients.

Graph 10 : : Difficulties encountered during repeat caesarean section

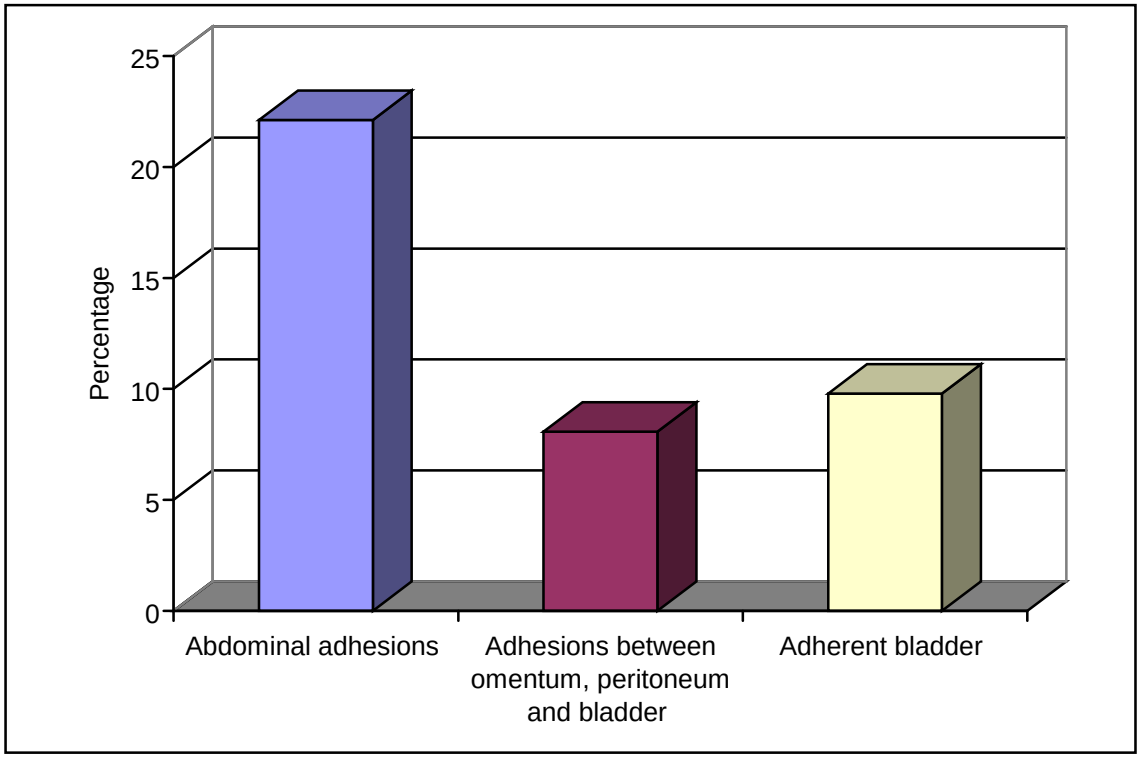


Table No. 12 : Condition of uterine scar during repeat CS

Condition of Scar	No. of Cases	%
Normal scar	177	97.25
Dehiscence of scar	5	2.75
Rupture of uterus	0	0

Scar dehiscence was seen intra operatively during repeat CS in 2.74% of the 182 patients who had a trial for VBAC.

Graph 11 : Condition of uterine scar during repeat CS

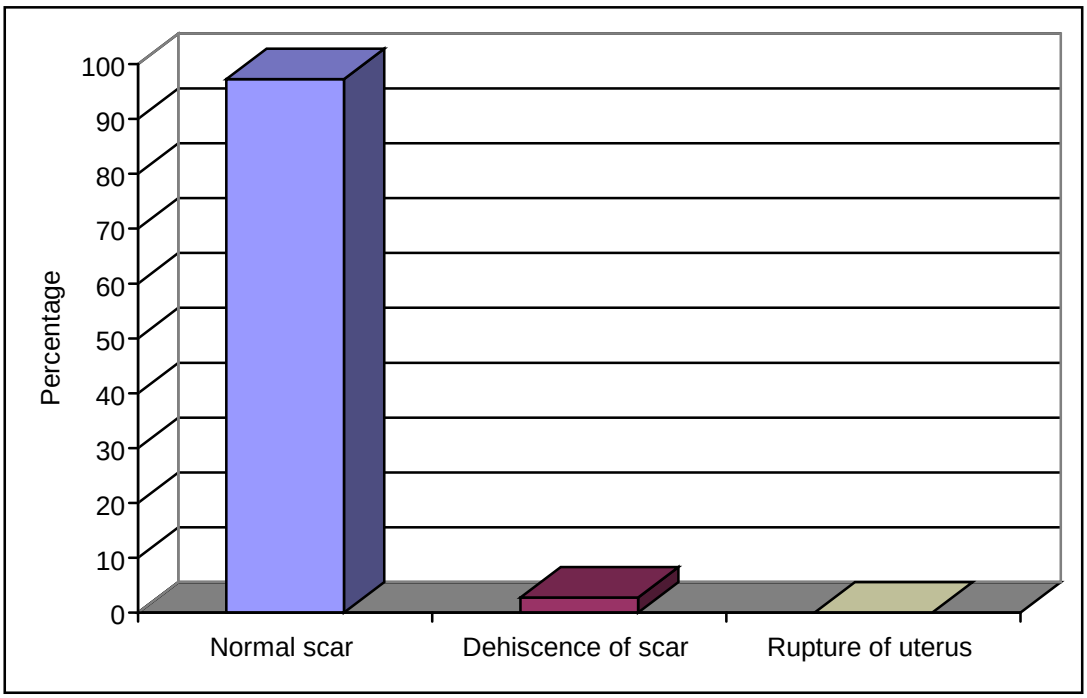


Table 13 : Perinatal morbidity and mortality

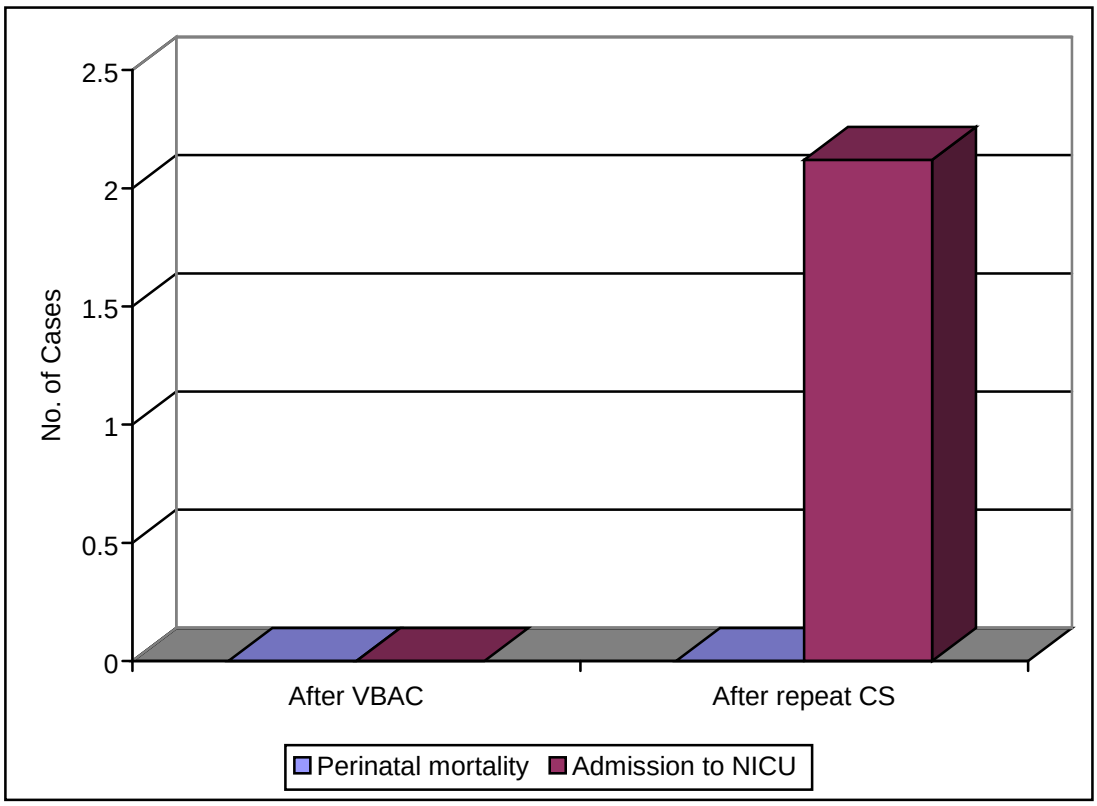
	After VBAC	%	After repeat CS	%
1. Perinatal mortality	**0**	**0**	**0**	**0**
2. Admission to NICU	**0**	**0**	**5**	**2.12**
• Respiratory distress syndrome	0	0	4	
• IUGR	0	0	1	

In the present study, 2.12% of babies who were delivered by a repeat caesarean section required an NICU admission. Of these 80% of the babies were admitted for respiratory distress syndrome and 20% for IUGR. They were discharged from the NICU subsequently healthy. There were no NICU admissions for babies born to the patients who had a successful VBAC.

There were 6 patients with antepartum still births.

There was no perinatal mortality seen in the present study.

Graph 12 : Perinatal morbidity and mortality



Graph 12a : Reasons for admission to NICU

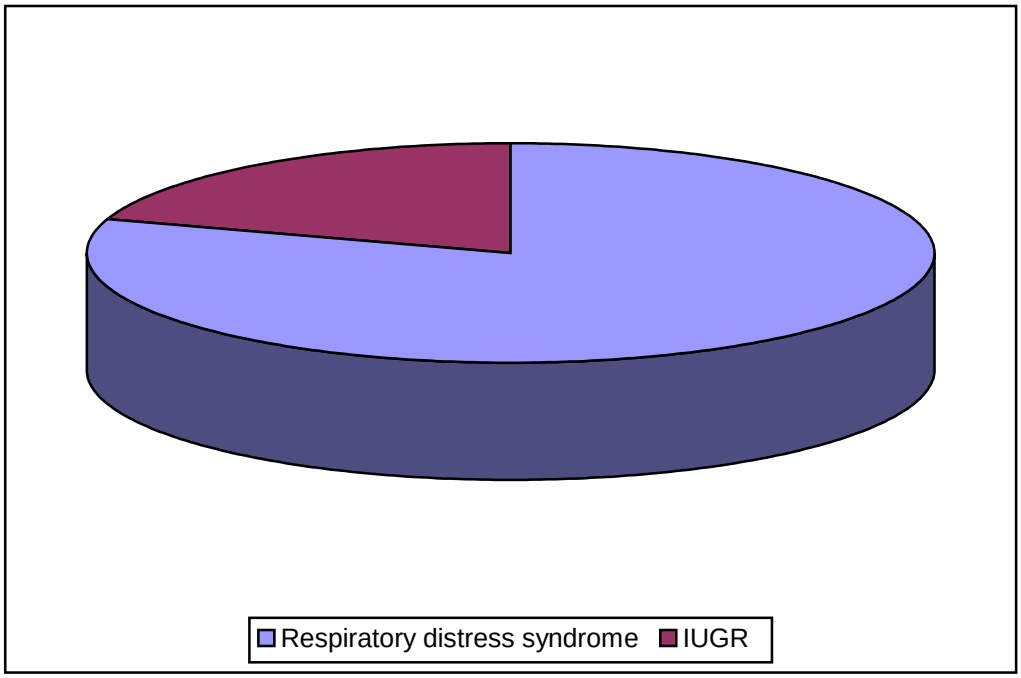
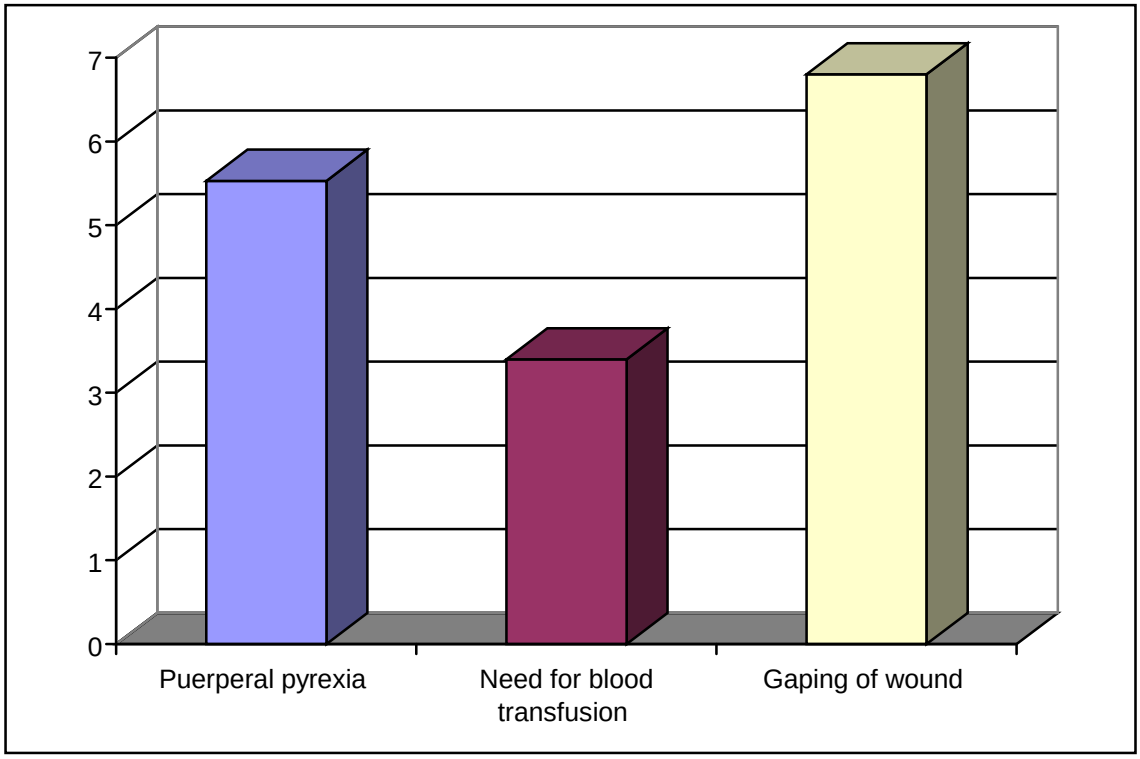


Table No. 14: Complications after repeat caesarean section

Sr. No.	Complications	No. of cases	%
1	Puerperal pyrexia	13	5.53
	A. UTI	6	2.55
	B. Wound infection	7	2.98
2	Need for blood transfusion	8	3.40
3	Gaping of wound	16	6.80

Out of 235 patients in whom repeat LSCS was performed, 12.76% (i.e. 30 cases) had complications, 5.53% patients had puerperal pyrexia, which was due to UTI (2.55%) and wound infection (2.98%). 6.80% of the patients had gaping of the LSCS wound post operatively. Blood transfusion was required in 3.40% of the cases.

Graph 13 : Maternal complications after repeat caesarean section



Graph 13a : Causes of puerperal pyrexia

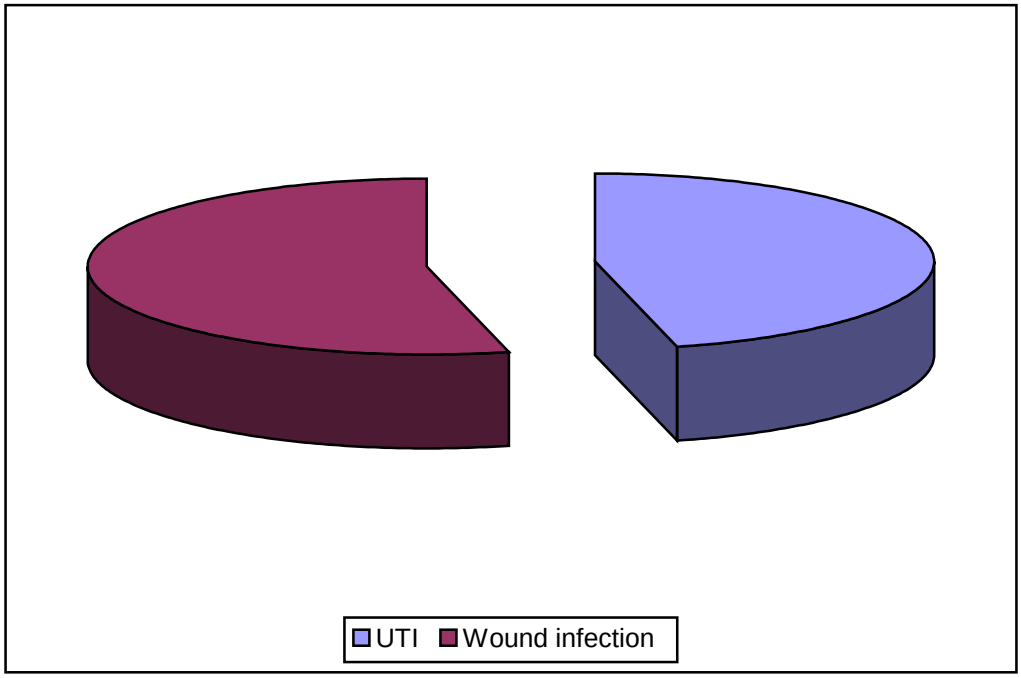
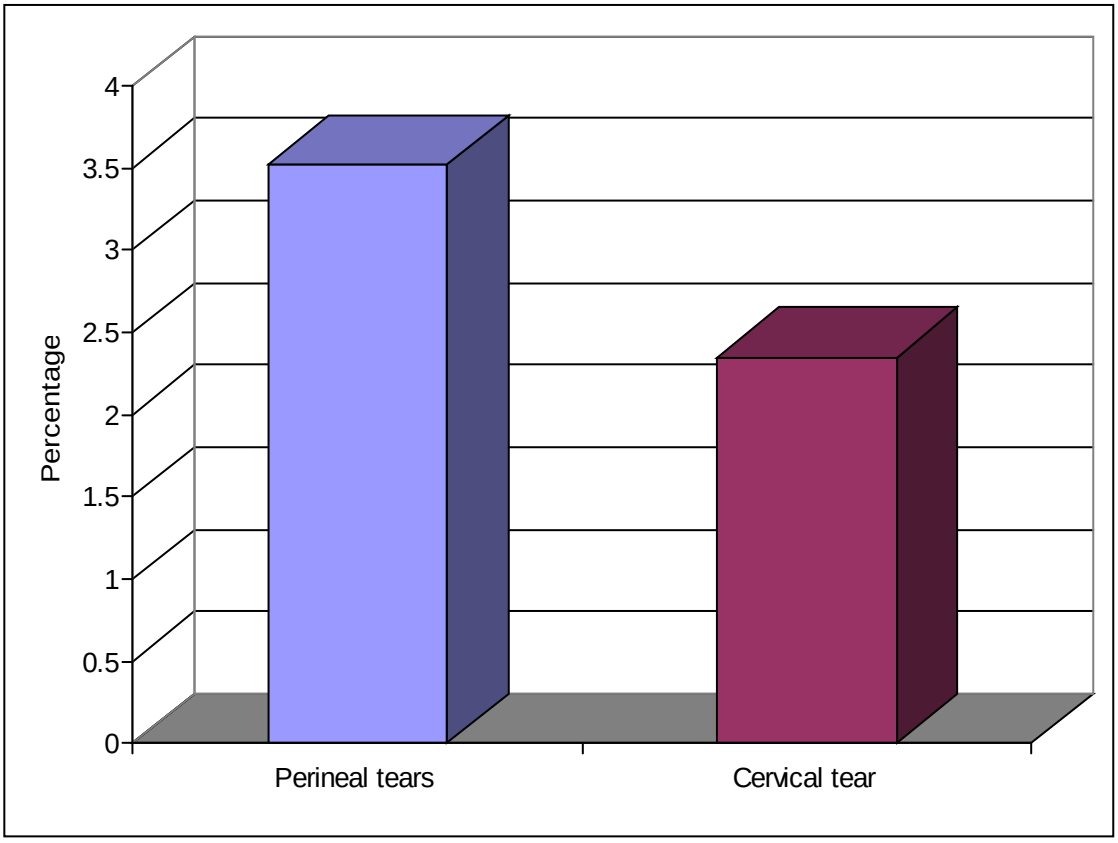


Table No. 15 : Maternal complications after VBAC

Complications	No. of cases	%
Perineal tears	3	3.52
Cervical tear	2	2.35

Out of the 85 patients, who had a successful VBAC, 3.52% had perineal tears and 2.35% had a cervical tear. No other major complications were noted.

Graph 14 : Maternal complications after VBAC



DISCUSSION

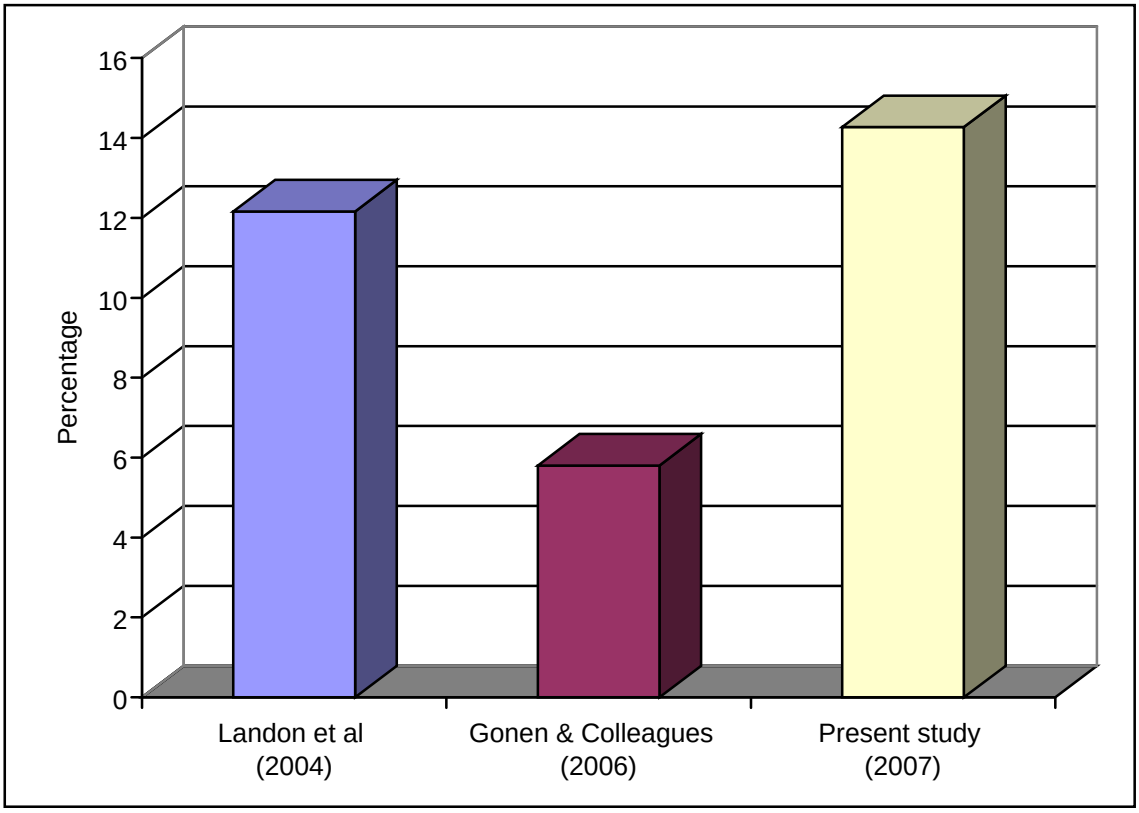
There is a widespread public and professional concern about the increasing proportion of births by caesarean section world wide.[35] Increasing rates of primary caesarean section have led to an increased proportion of the obstetric population who have a history of prior caesarean delivery. Pregnant women with a prior section may be offered either a trial for VBAC or an elective repeat caesarean section (ERCS). The proportion of women who decline VBAC, is in turn, a significant determinant of overall rates of caesarean birth.

New evidence is emerging to indicate that VBAC may not be as safe as originally thought.[23,36] But reports are conflicting and these factors along with medicolegal concerns have led to a decline in clinicians offering and women accepting trial for VBAC in various parts of the world. [5,37]

The present study evaluated the outcome and trends in patients with a history of prior LSCS who delivered in our hospital in the year 2007.

Out of 2243 patients who delivered in our hospital during the study period, 320 term patients had a history of a prior LSCS, accounting for 14.27% of the total number of patients **(Refer table 1)**. This incidence is comparable to the recent study by Landon et al, in which 12.16% of the total number of patients who delivered had a history of prior caesarean delivery.[23] Our incidence though, is lower than that in the study by Gonen and colleagues, where it was 5.8%.[25] (**Refer Graph 15**). The sample size for the present study was 200 patients, which was calculated as 80% of the mean

Graph 15 : Comparison of Incidence of Previous LSCS

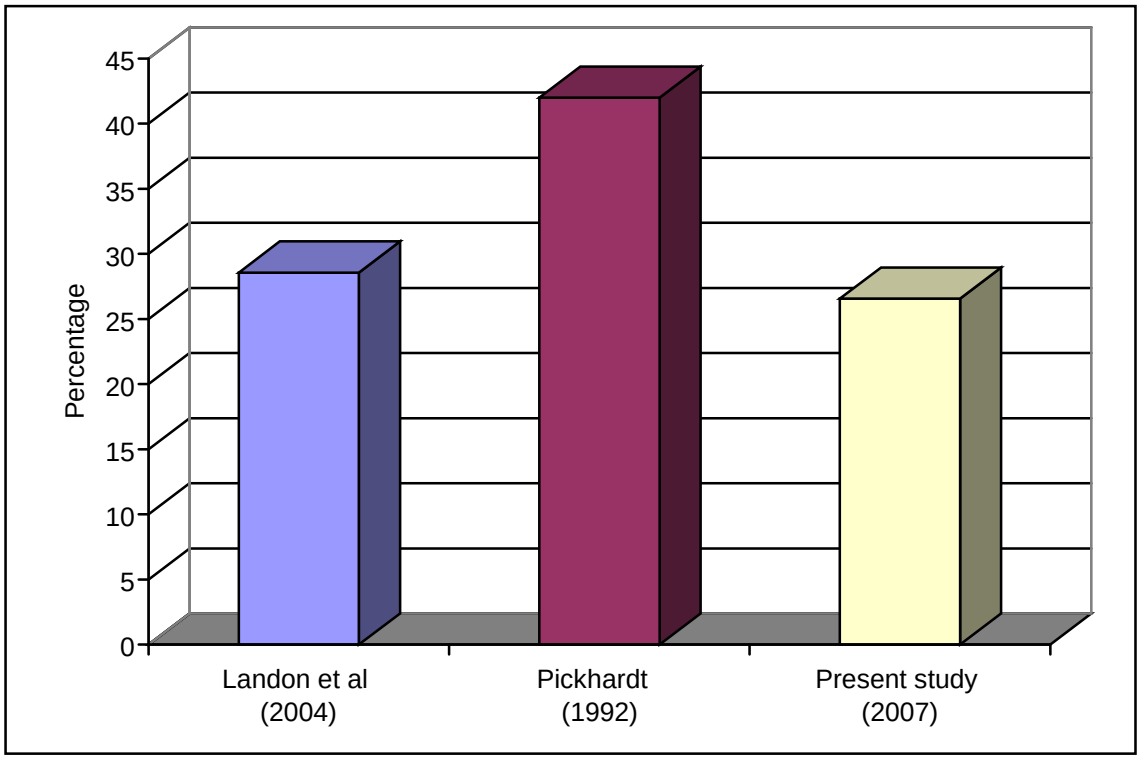


number of patients with a history of previous LSCS who presented to the hospital's labour room over a period of 2 years prior to the study, with an incidence of about 9%. The study however included 320 patients of previous LSCS, which clearly indicates an increase in the incidence of patients with a prior history of LSCS over the years. Sagar and associates, in 1983, reported an incidence of 4.53%. [38] Flamm and colleagues reported an incidence of 8.6% and Pickhardt reported an incidence of 11.7%. [39,40]

The overall rate of vaginal delivery following previous caesarean delivery, as reported in literature, varies from 28% to 51%. Landon et al reported an incidence of 28.57% vaginal deliveries.[23] Our study is comparable to this, with 26.56% of the patients delivering vaginally **(Table 3)**. However, Gonen and colleagues in their study reported 51.22% of patients delivering vaginally. Chattopadhyay and colleagues reported an incidence of 40% and Pickhardt reported an incidence of 42% **(Graph 16)**. [40,41] The probable reasons for the low rate of vaginal deliveries in our study were that, about 41% of the patients were taken up for an ERCS and only 46.70% of the patients who had a trial for VBAC, delivered vaginally.

Out of the 320 patients in our study, 56.87% were given a trial for VBAC **(Table 4)**, as against 39.90% of the patients in the study by Landon et al and 64% of the patients in the study by Gonen and Colleagues. [23,25]

Graph 16 : Comparison of Incidence of Vaginal Delivery



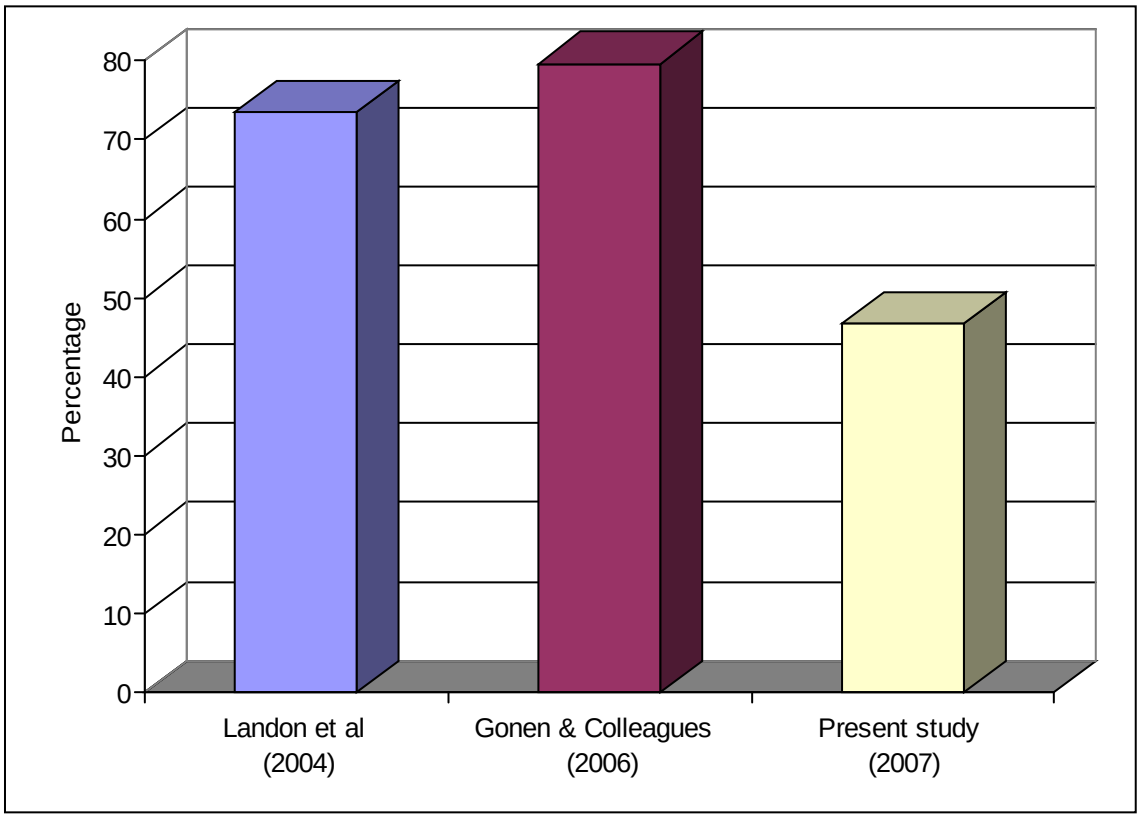
46.70% of patients had a successful VBAC in the present study, which is lower than that in other studies **(Table 4)**. Landon and associates reported a success rate for vaginal delivery of 73.41% and Gonen et al reported a success rate of 79.66%.[23,25] (**Graph 17**) Cowen and colleagues reported a successful VBAC of 81%.[21] The probable reasons for a low rate of successful VBAC in our study were that : -

1. Only 17.58% of the patients who opted for a trial for VBAC had a history of prior vaginal deliveries as compared to 50% of the patients in the study by Landon and colleagues and 42.20% of the patients in the study by Gonen et al.[23,25]

2. About 52.88% of the patients who had an unsuccessful VBAC, were taken up for a repeat CS in view fetal distress, early in labour.

In the present study, 14.12% of the patients who delivered vaginally, required an assisted vaginal delivery **(Table 5)**. 5.88% required a forceps assisted delivery and 8.24% required a ventouse assisted delivery. These figures are less than that reported in literature. Allahabadia and colleagues reported use of forceps in 21.30% of their patients.[42] McGarry reported an incidence of 24.30%.[43] Graham and colleagues used ventouse assistance in 10.8% of patients in their study and Kala et al reported 12.10% ventouse assisted deliveries in their study.[44,45] In the present study, fetal distress was the sole indication for instrumental delivery and both forceps and ventouse were not applied prophylactically.

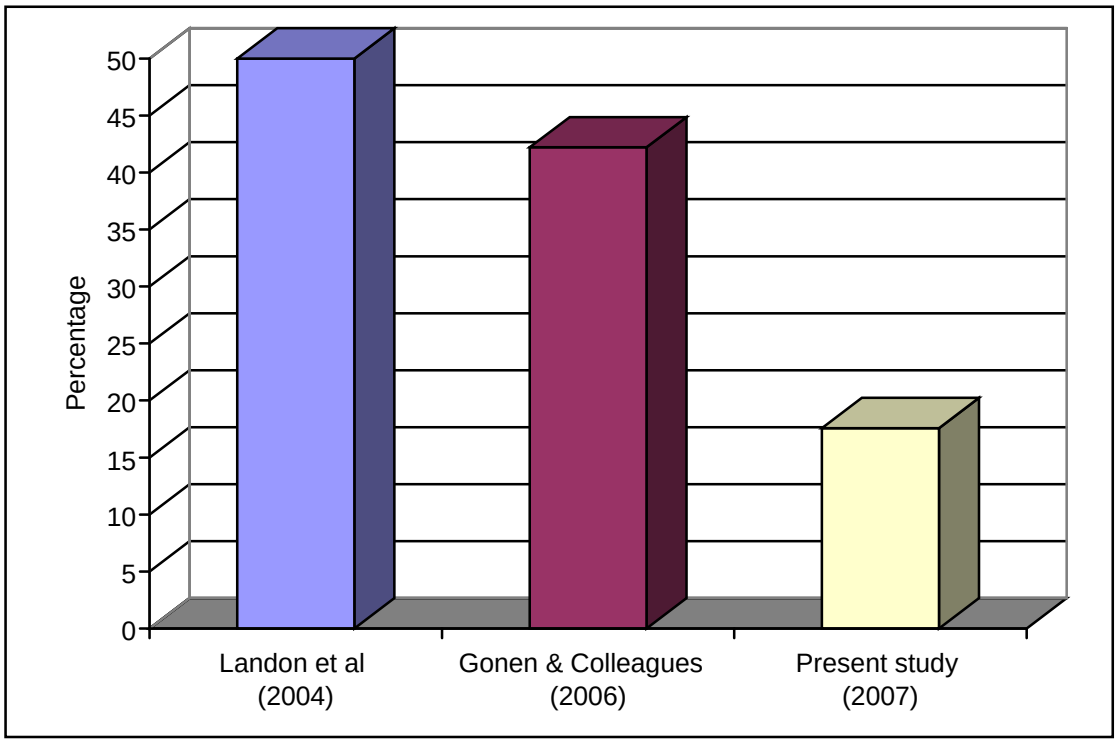
Graph 17 : Comparison of Success of VBAC



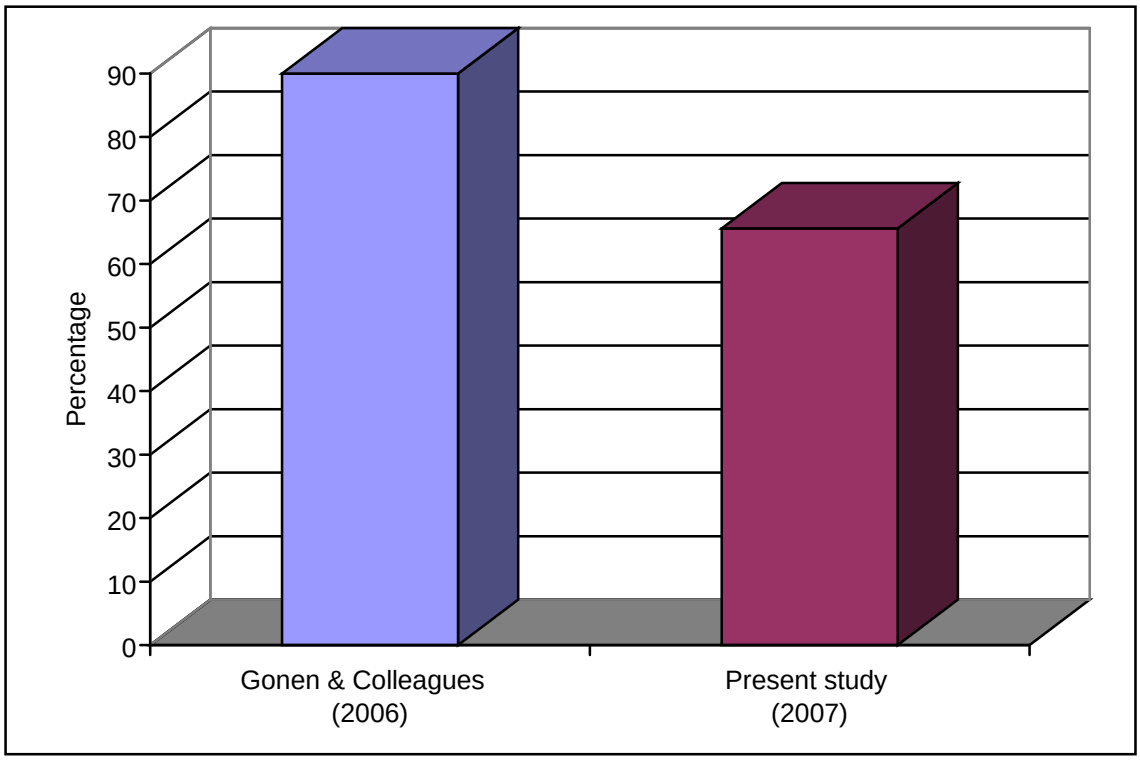
Out of the 18 patients in the present study who were induced with a single dose of cerviprime gel for having completed 41 weeks of pregnancy and not going into labour spontaneously, only 22.22% delivered vaginally and 77.78% had a repeat CS **(Table 6)**. There was no scar dehiscence or rupture seen in any of the induced patients. Gonen et al reported that 68.33% of the patients who were induced, delivered vaginally and there were no cases of uterine rupture following induction.[25] Landon et al on the other hand, reported a significantly greater risk of uterine rupture associated with induction of labour.[23]

In the present study only 17.58% of the patients among those given a trial for VBAC, had a history of prior vaginal deliveries, as against 50% of patients in the study by Landon et al and 42.20% of the patients with a similar history in the study by Gonen and colleagues (**Graph 18**).[23,25] 65.62% of patients with a history of prior vaginal delivery delivered vaginally in the present pregnancy **(Table 7)**. About 90% of the patients who had a history of previous vaginal delivery in the study by Gonen and Colleagues, had a successful VBAC (**Graph 19**).[25] Of the 32 patients in our study with a history of prior vaginal delivery, 10 patients had a history of prior successful VBAC and 80% of them delivered vaginally in the present pregnancy. This indicates that women with a previous vaginal delivery had a better chance for a successful VBAC, and the study by Landon et al also concluded that, women with a prior vaginal delivery or a prior successful VBAC were more likely to undergo a trial for VBAC in their present pregnancy with a good rate of success. [23]

Graph 18 : Comparison of Patients with history of Prior Vaginal Deliveries



Graph 19 : Comparison of Incidence of vaginal delivery in patients with History of Prior Vaginal Delivery



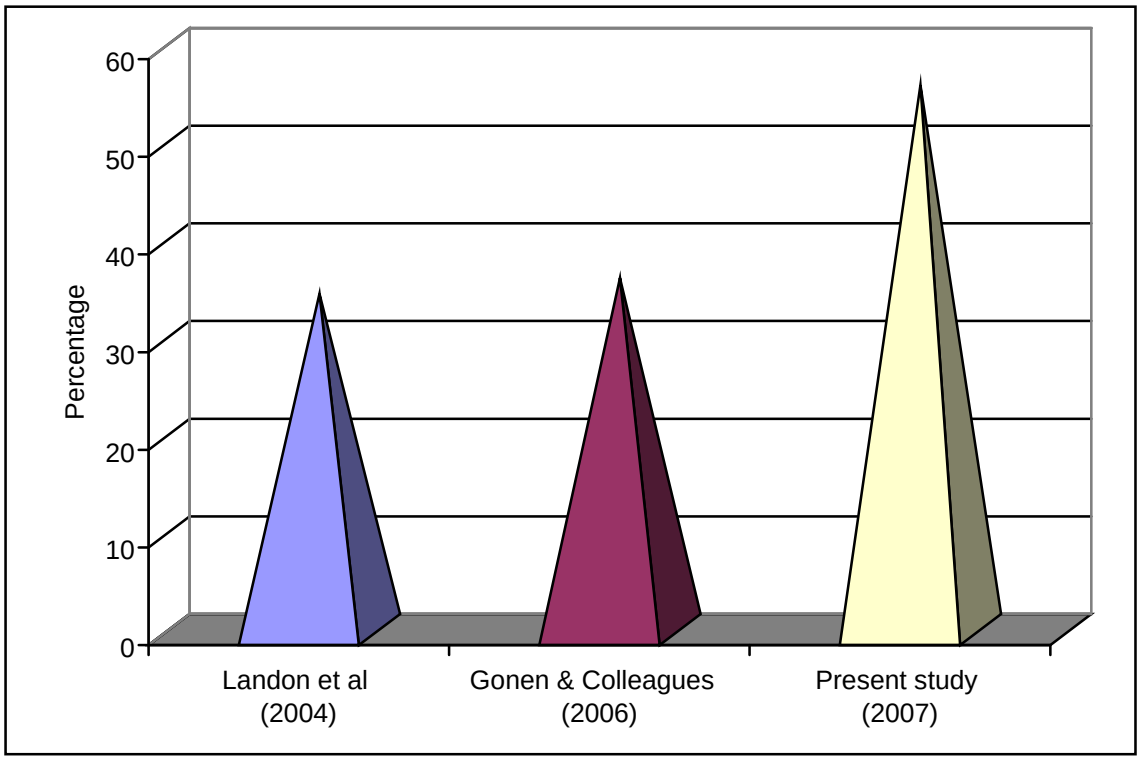
Mercer et al in a 4 year observational multicentric study, concluded that an increasing number of prior successful VBACs is associated with a greater probability of VBAC success as well as a lower risk of uterine rupture and perinatal complications in the current pregnancy. [46]

55.74% of the patients who had a repeat CS in the present study, were taken up electively for various indications **(Table 8)**. This was significantly higher than the percentage of women who had an ERCS in the Landon et al study, which was 34.40%, and 36% in the study by Gonen and colleagues (**Graph 20**).[23,25] The most common indication for an ERCS in the present study was the unwillingness of the patient for a VBAC inspite of being eligible for a trial for VBAC, which constituted 38.17% of the total number of patients who had an ERCS. This is comparable to the study by Gonen and colleagues, where 37.90% of the patients had an ERCS on maternal request and declined for a trial for VBAC. [25]

In the present study, the most common indications for a repeat emergency LSCS were fetal distress and non-progress of labour, together constituting about 80% of the total number of repeat emergency LSCS **(Table 10)**. This is comparable to other studies.[23,25]

Scar dehiscence, defined as a disruption of the uterine muscle with intact serosa, was seen in 5 patients (2.75%) who had a trial for VBAC in the present study **(Table 12).** This is comparable to the incidence quoted by Paul et al, which was 2.35% in their study.[47] Landon and colleagues however reported an incidence of only

Graph 20 : Comparison of Patients who had a Repeat Elective CS



0.67% which is lower than that in the present study (**Graph 21**).[23] The reason for this may have been the large size of the Landon et al study and its multicentre design.

There were no cases of uterine rupture in the present study.

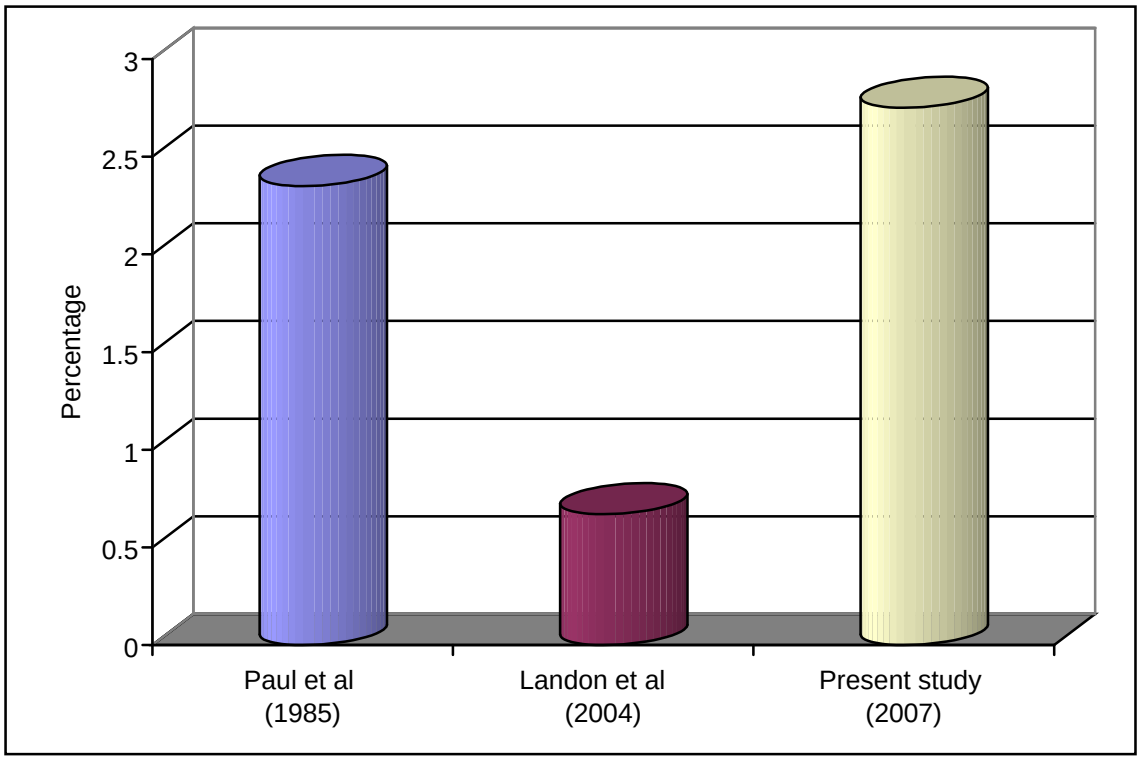
The main difficulties in the present study while doing a repeat caesarean section were, difficulty in opening the abdomen due to adhesions in 22.12% of the cases, adhesions between omentum, periotoneum and bladder in 8.08% of the cases and difficulty in separation of the bladder in 9.79% of the cases **(Table 11).** Parikh et al found excessive adhesions in 36% of the patients for an LSCS in his study. [48]

In the present study, perinatal morbidity was seen in 2.12% of the patients who delivered by a repeat caesarean delivery **(Table 13)**. The most common cause for morbidity, affecting 4 neonates (1.70%) in this group, was respiratory distress syndrome (RDS). There was 1 neonate (0.42%) who was admitted to the NICU for IUGR. All of the 5 neonates were subsequently discharged healthy from the NICU.

There were no NICU admissions for babies born to the patients who had a successful VBAC in the present study.

These results are comparable to those in the study by Gonen & colleagues, where in perinatal morbidity was higher (4.3%) in the group of patients who had a repeat CS versus those who had a successful VBAC (2.4%) and this was of borderline significance. [25] Landon et al, however, concluded that a trial for VBAC is associated with a significantly greater perinatal risk than ERCS and that

Graph 21 : Comparison of Incidence of Scar Dehiscence



the frequency of hypoxic ischemic encephalopathy (HIE) was significantly greater among infants of women who underwent a trial for VBAC than among those of women who had an ERCS (12 Vs 0, p <0.001) [23] (**Graph 22**) .

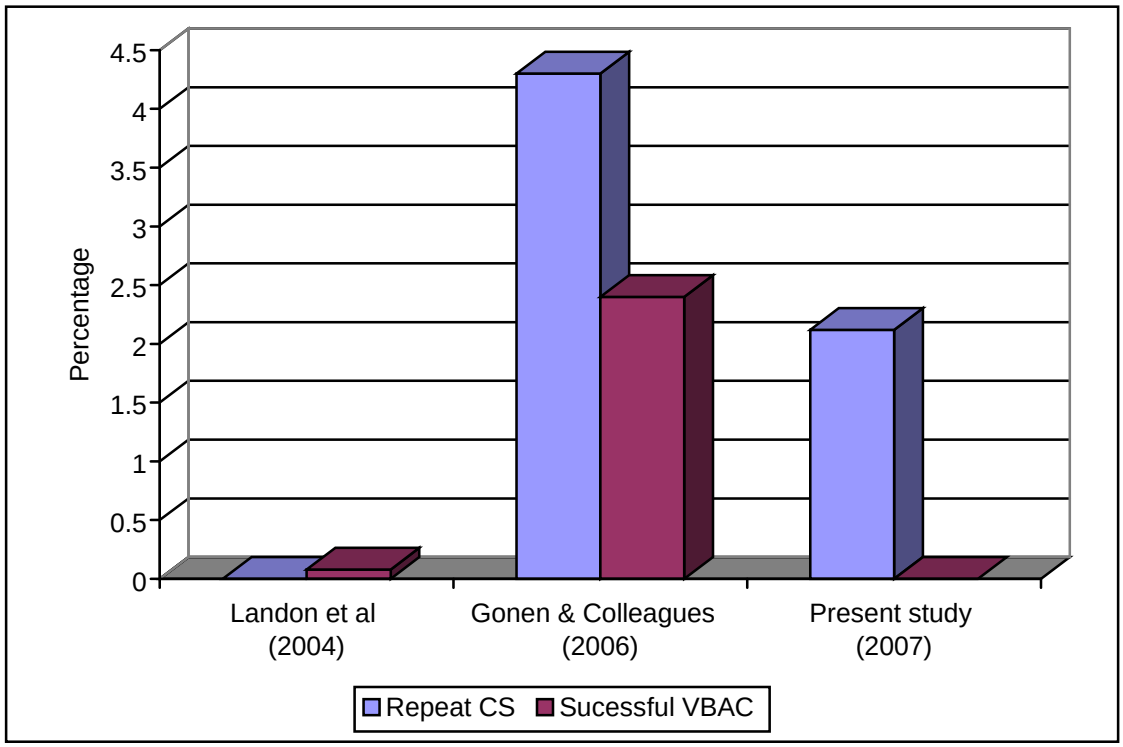
There was no neonatal mortality in the present study. There were 6 antepartum still births which were not included under the neonatal mortality statistics, as they did not arise as a consequence to intra partum events and hence were not birth related mortalities.

In the present study, maternal morbidity was noted in 12.76% of the patients who had a repeat CS and in only 2.74% of patients who had a trial for VBAC **(Tables 14 & 15).** Maternal morbidity in cases of repeat caesarean delivery was in terms of puerperal pyrexia (5.53%), need for blood transfusion (3.4%) and wound gaping (6.80%). Puerperal pyrexia was due to urinary tract infection (UTI) in 2.55% of the patients and LSCS wound infection in 2.98% of the patients who underwent a repeat CS.

Blood transfusion was required in 3.40% of the patients who had a repeat CS and the main indications were severe anemia and excessive bleeding during CS. LSCS wound gaping contributed to a significant proportion of maternal morbidity.

It has generally been accepted that vaginal delivery is associated with lower maternal morbidity and mortality rates than repeat CS. Our results are comparable to an earlier meta analysis comparing ERCS Vs trial for VBAC. [49]

Graph 22 : Comparison of Perinatal Morbidity



Gonen and colleagues, in their study, reported a maternal complication rate of 7.13% in patients who had a trial for VBAC. Of these, minor complications (5.4%) in the form of febrile morbidity and scar dehiscence mainly contributed to the morbidity. 4.92% of the patients who had a repeat CS developed maternal complications in terms of operative injury and need for more than 2 units of blood transfusion.[25]

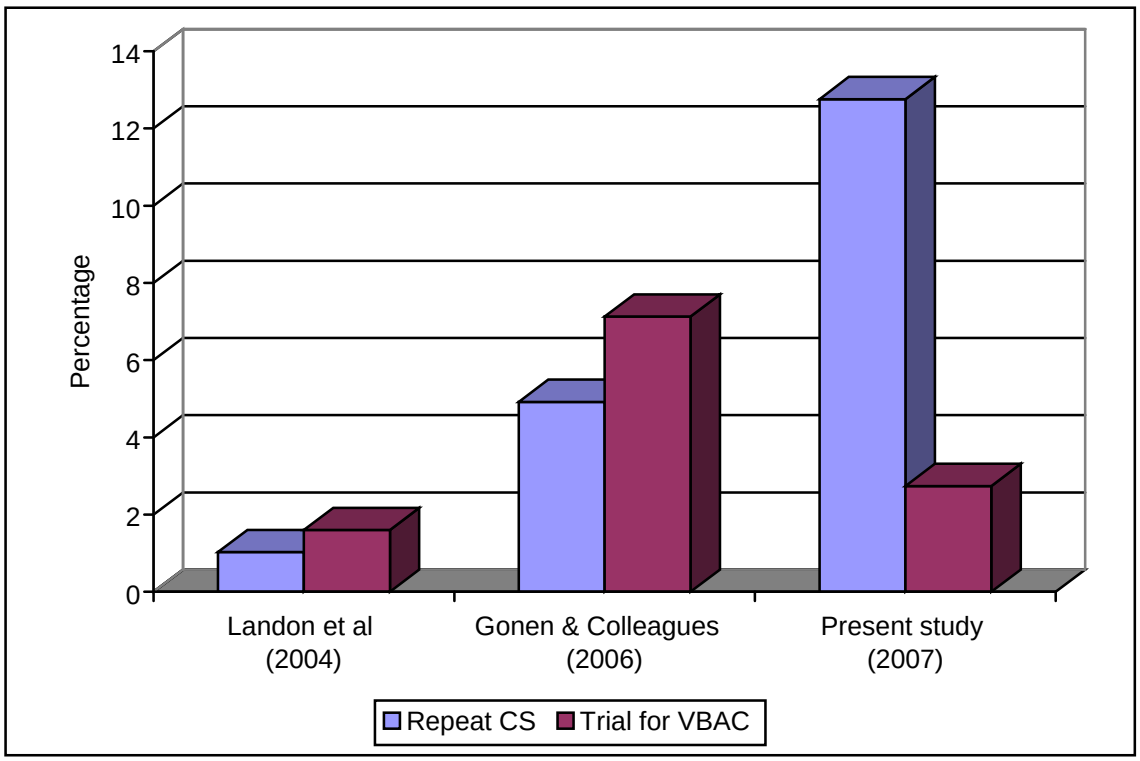
Landon et al reported an increased risk of endometritis and blood transfusion in women undergoing a trial for VBAC than in women undergoing an ERCS. There was no significant difference in overall maternal morbidity between women who underwent a trial for VBAC (1.60%) and those who had an ERCS (1.03%) (**Graph 23**). [23]

In the present study, there was no maternal mortality noted.

In the United States, ERCS results in around half a billion dollars in cost to the tax payer every year. A review of literature suggests that it does not effect any decrease in fetal or maternal mortality and instead further increases costs borne out of increased hospital stay and maternal morbidity. [50,51]

From various recent studies on the subject of birth after previous caesarean delivery, it would be safe to conclude that a trial for VBAC after a prior LSCS constitutes a safe form of obstetrical management.

Graph 23 : Comparison of Maternal Complications



Current recommendations of the RCOG and ACOG include offering the option of a planned VBAC to women with a prior history of one uncomplicated LSCS in an otherwise uncomplicated pregnancy at term, with no contraindication to vaginal birth.[34,52] Stress has been laid on proper antenatal counseling regarding the benefits and risks associated with a planned VBAC. A final decision for mode of birth must be agreed upon before the expected date of delivery (ideally at 36 weeks of gestation). [52] VBAC should always be attempted in institutions well equipped to respond to emergencies, with an OT facility and adequate trained personnel to provide emergency care.[34]

In the absence of large scale RCTs comparing trial for VBAC and ERCS, there is a large scope for future research in 'birth after previous caesarean birth' and priorities have to be identified in this respect. A simple and pragmatic method or scoring system for quantifying the risk of emergency caesarean delivery and uterine rupture during attempted VBAC will help identify women at high risk for an unsuccessful VBAC and would thus help decision making considerably. Long term maternal and infant outcomes between planned VBAC and ERCS, such as subfertility, depression, pelvic floor dysfunction, incontinence and neurodevelopmental disorders need to be studied.

CONCLUSION

At the end of the present study the following observations were made

- There is a rise in the number of patients presenting with a history of previous LSCS over the years (Graph 15; on page no. 49).

- A large number of patients declined a trial for VBAC inspite of being eligible for it (Table no. 9, on page no. 32). Hence, it is essential to counsel patients with a history of prior LSCS, ideally during the antenatal period, regarding the benefits and the risks (both maternal and perinatal) of a VBAC, enabling them to make an informed choice early and probably bring down the repeat caesarean rate.

- Patients with a history of previous vaginal delivery(s) and particularly those with a history of prior successful VBAC, have a better chance for a successful VBAC in the present pregnancy (Table no. 7, on page no. 28). The poor success rate of VBAC in the present study may be attributable to the low proportion of patients with a history of pervious vaginal delivery(s) who underwent a trial for VBAC.

- Majority of the patients who were induced with PGE_2 gel were delivered by an emergency LSCS, either in view of failure to go into labour or for fetal distress (Table no. 6, on page no. 26), suggesting that the use of an inducing agent decreases the chance for a successful VBAC.

- In the absence of severe morbidity associated with scar dehiscence following a trial for VBAC and with a low maternal and perinatal morbidity, vaginal deliveries are a much safer outcome than repeat caesarean deliveries (Table nos. 13, 14 & 15, on page nos. 40, 43, 46).

SUMMARY

- A total of 320 patients with a history of prior LSCS, presenting at term, were studied over a period of one year.

- Amongst the 320 patients, 81% were registered with us prior to admission

- All the patients were subjected to a clinical examination and were either given an option for a trial of VBAC or taken up for an elective repeat caesarean section depending on their informed choice.

- Out of 320 patients, 182 opted for a trial for VBAC.

- Out of the 182 patients who were given a trial for VBAC, 46.70% had a successful VBAC.

- 131 patients were taken up for an elective repeat caesarean delivery, the most common indication being the unwillingness of the patient for a trial for VBAC (38.17%)

- A total of 7 patients were taken up for an emergency LSCS, without a trial for VBAC, 4 of which were for fetal distress, one for breech in labour, one for severe pre eclampsia and another one for compound presentation of the fetus.

- Only 17.58% of the patients given a trial for VBAC had a history of prior vaginal deliveries and about 66% of them had a successful VBAC in the present pregnancy.

- 53.30% of the patients had a repeat caesarean section following trial for VBAC, the most common indications being fetal distress (52.88%), non progress of labour (26.92%) and failed induction (7.69%).

- Out of the 18 patients who were induced with PGE_2 gel, only 4 (22.22%) patients delivered vaginally, that is to say that every 1 in 5 patients who were induced had a successful VBAC. The main indications for an unsuccessful VBAC in these cases were, failed induction (57.14%) and fetal distress (42.86%)

- Scar dehiscence was noted in 2.74% of patients who attempted a VBAC.

- Perinatal morbidity in terms of admission to the NICU for RDS (4 neonates) and IUGR (1 neonate) was 2.12% in the cases of repeat caesarean delivery and nil among those who had a successful VBAC.

- Complications such as puerperal pyrexia due to UTI and wound infection, requirement for blood transfusion and wound gaping was noted in 12.76% cases after repeat LSCS.

- Complications such as perineal and cervical tears was seen in 2.74% of the cases after a trial for VBAC.

BIBLIOGRAPHY

1. Curtin SC. Rates of caesarean birth and VBAC, 1991-95. Monthly vital statistics report ; 45(11) Suppl 3 Hyattsville (MD) : National center for Health statistics ; 1997.

2. Rates of caesarean delivery – United States, 1991 – MMWR Morb Mortal Wkly Rep 1993 ; 42 : 285-9.

3. Stafford RS. Alternative strategies for controlling rising caesarean section rates. JAMA 1990; 263 : 683-7.

4. Cragin EB. Conservatism in obstetrics. NY Med J 1916; 104(1): 1-3.

5. Menacker F, Curtin SC. Trends in caesarean birth and vaginal birth after previous caesarean. 1991-99. Natl Vital Stat Rep 2001; 49:1-16.

6. Dodd JM, Crowther CA, Huertas E, Guise JM, Horey D. Planned elective repeat caesarean section versus planned vaginal birth for women with a previous caesarean birth. Cochrane Database Syst Rev 2006; (4) : CD004224.

7. M. Enkin, M.J.N.C. Keirse, J. Nielson, C. Crowther, L. Duley, E. Hodnett, and J. Hofmeyr. A Guide to Effective Care in Pregnancy and Childbirth. Oxford University Press, 2000.

8. Rosen M.G., Dickinson J.C, and Westhoff C.L. (1991). Vaginal birth after caesarean: a meta-analysis of morbidity and mortality. Obstet. Gynecol., 1991; 77, 465-70.

9. Fang and Zelop. Vaginal Birth after Caesarean Section, Clinical Obstetrics and Gynaecology 2006 ; 49 : 147-153

10. Jhaveri A. Obstetric Career After previous Caesarean Section : J. Obstet Gyncol India 1969 ; 19 : 561.

11. Young JH. The history of caesarean section – London. 1944.

12. Cunningham F. Caesarean Section and Caesarean Hysterectomy, Williams Obstetrics. 19th Edition, Chapter 26 ; 1993 : 591.

13. Latzko W, Veber Den. Extraperitonealean Kaiser Schmitt, Zentralbl Gynecol 1909 ; 33 : 275.

14. Waters EG. Supravesical extra peritoneal caesarean section, Presentation of a new technique Am J Obstet Gynecol 1940 ; 39 : 423

15. Porro E, Della. Amputazione Utero Ovarica, Milan, 1876.

16. Kerr JMM. The technique of caesarean section with special reference to the lower segment incision. Am J Obstet Gynecol 1926 ; 12 : 729.

17. Merrill BS, Gibbs CE. Planned vaginal delivery following caesarean section. Obstet Gynecol 1978; 52:50.

18. Porreco PR, Meier PR, Richard J. Trial of labour in patients with multiple previous caesarean sections. Journal of Reproductive medicine 1983; 28:770-772.

19. Martin JN. Vaginal delivery following previous caesarean birth. Am. J. Obstet Gynecol 1992; 166:1811-9.

20. Thomas GS. Trial of labour in previous caesarean section patients. Obstet Gynecol 1987; 70:713.

21. Cowan RK, Kinch RA, Ellis B, Anderson R. Trial of labour following caesarean delivery. Obstet Gynecol 1994; 83:933-6.

22. Alves MF. Trial of labour after caesarean section. Acta Med Pract 1993; 6:573-6.

23. Landon MB, Hauth JC, Leveno KJ, Spong CY, Leindecker S, Varner MW, et al. Maternal & Perinatal outcomes associated with a trial of labour after prior caesarean delivery. N Engl J Med 2004; 351:2581 - 2589.

24. Ghaffari. Safety of VBAC. Int J. Gyn Ob 2006 ; 92 : 38

25. Gonen R, Nisenblat V, Barak S, Tamir A, Ohel G. Results of a well defined protocol for a trial of labour after prior caesarean section. Obstet Gynecol 2006; 107:240-5.

26. Miller DA, Diaz FG, Paul RH. VBAC : A 10 - year experience. Obstet Gynecol 1994 ; 84 : 255-8.

27. Asakura H, Myers SA. More than one previous caesarean delivery : A 5 - year experience with 435 patients. Obstet Gynecol 1995 ; 85 : 924-9.

28. Caughey AB, Shipp TD, Repke JT, Zelop CM, Cohen A, Lieberman E. Rate of uterine rupture in women with one or two prior caesarean deliveries. Am J Obstet Gynecol 1999 ; 181 : 872-6.

29. Macones GA, Hausman N, Edelstein R, Stamilio DM, Marder SJ. Predicting outcomes of trials of labour in women attempting VBAC : a comparison of multivariate methods with neural networks. Am J Obstet Gynecol 2001 ; 184 : 409-13.

30. Ravasia DJ, Wood SL, Pollard JK. Uterine rupture during induced trial of labor among women with previous caesarean delivery. Am J Obstet Gynecol 2000 ; 183 : 1176-9.

31. Sims EJ, Newman RB, Hulsey TC. VBAC : to induce or not to induce. Am J Obstet Gynecol 2001 ; 184 : 1122-4.

32. Rochelle LM, Holt VL, Easterling TR, Martin DP. Risk of uterine rupture during labour among women with a prior caesarean delivery. N Engl J Med 2001 ; 345 : 3-8.

33. Stone JL, Lockwood CJ, Berkowitz G, Alvarez M, Lapinski R, Valcamonico A. et al. Use of cervical PGE_2 gel in patients with previous caesarean section. Am J Perinatol 1994 ; 11 : 309-12.

34. American College of Obsetricians and Gynecologists Committee on Obstetric Practice Bulletins. ACOG Practice Bulletin No. 54 : Vaginal birth after previous caesarean delivery. Obstet Gynecol 2004 ; 104 : 203-12.

35. Parliamentary Office of Science and Technology. Caesarean sections. Postnote 2002 ; 184 : 1-4.

36. Smith GC, Pell JP, Cameron AD, Dobbie R. Risk of perinatal death associated with labor after previous caesarean delivery in uncomplicated term pregnancies. JAMA 2002 ; 287 : 2684 - 2690.

37. Yeh J, Wactawski-Wende J, Shelton JA. Reschke J. Temporal trends in the rates of trial of labor in low risk pregnancies and their impact on the rates and success of vaginal birth after caesarean delivery. Am J Obstet Gynecol 2006 ; 194 : 144.

38. Sagar S, Goyal U. Post Caesarean Pregnancy – A Clinical review : J Obstet Gynaecol India 1983 ; 33 : 592.

39. Flamm B., Lim O, Jones C, Fallon D, Newman L, Mantis K. Vaginal Birth after caesarean section : Results of a multicentric study. Am J Obstet Gynecol 1988 ; 158 : 1079.

40. Pickhardt M, Martin J, Meydrech E, Blake P, Martin R, Perry K. Vaginal Birth after caesarean delivery : Are there useful and valid predictors of success or failure. Am J Obstet Gynaecol 1992 ; 166 : 1811.

41. Chattopadhyay K, Sengupta B, Edress Y, Lambourne A. Vaginal Birth After caesarean section : Management Debate. Am J Obstet Gynaecol 1988 ; 26 : 189.

42. Allahabadia N, Ambiye V, Shanbaug. Vaginal birth following caesarean sections. J Obstet Gynaecol India 1989 ; 39 : 782.

43. McGarry J. The management of patients previously delivered by caesarean section. J Obstet Gynaecol Brit 1969 ; 76 : 137.

44. Graham A. Trial of labour following previous caesarean section. Am J Obstet Gynecol 1984 ; 149 : 35.

45. Kala S, Alam M. Post Caesarean Pregnancy - A Study. J Obstet Gynaecol India 1983 ; 36: 797.

46. Mercer BM, Gilbert S, Landon MB, Spong CY, Leveno KJ, et al. Labor outcomes with increasing number of prior vaginal births after caesarean delivery. Obstet Gynecol 2008 ; 111 : 285-91.

47. Paul R, Phelen J. Trial of labour in patient with a prior caesarean birth. Am J Obstet Gynaecol 1985 ; 151 : 297.

48. Parikh V. Management of patients with previous caesarean section. J Obstet and Gynaecol of India 1964 ; 14 : 327.

49. Mozurkewich EL, Hutton EK. 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.

50. Petrie R, Richart R, Strassar J, Cohen W. Is caesarean section cost effective ? Contempt Obstet Gynaecol 1982 ; 19 : 161.

51. Shy L, Logerfo J, Karp L. Evaluation of elective repeat caesarean section as a standard of care. Am J Obstet Gynecol 1981 ; 139 : 123.

52. RCOG Green top guideline No. 45. Birth after previous caesarean birth. Feb 2007.

PROFORMA

Name: Sl. No.

Age: Reg/Un Reg.

I/P. No.

DOA :

DOD:

Duration of stay in Hospital:

Present History:

Duration of Amenorrhoea:

	Yes	No
H/O. Pain abdomen	☐	☐
If yes _____hrs. prior to admission.		
	☐	☐
H/O/P.V Leak	.....	.....

Menstrual History:

LMP:

EDD:

Obstetric History:

Previous Pregnancy : LSCS –Indication:

- Type

Outcome – Male /Female

Wt. Kg.

Post operative period.

Present Pregnancy

General physical examination:

Pulse : /min Pallor:

BP: /MM Hg Height _____cm

Breast:

Pedal Oedema:

Respiratory system:

Cardio vascular system:

P/A: Ut size _____wks

Acting /Not acting

Fundal ht_____cm

Abdominal girth _____inches

Presentation

Scar tenderness- Yes/No.

FHS _____b/min

EBW _____ kg

P/V: Cervical score:

Cx dilation _____cm

Effacement _____

Station _____

Membranes present/absent

Pelvic assessment:

- Sacral promontory
- Ischial spines
- Pelvic walls
- Subpubic angle
- Bituberous diameter

Investigations:

Hb _____gm%

Bl grp:

Urine:

Albumin

Sugar

Management during labour

Pains _____show _____ Ruptured membranes _____

D										
I										
L										
A										
T										
I										
O										
N										
O										
F										
C										
E										
R										
V										
I										
X										

Hours

	160																				
	150																				
	140																				
F	130																				
H	120																				
S	100																				
Maternal pulse																					
BP																					
Uterine Contraction																					
Liquor																					
Supra pubic tenderness																					

Duration of labour:

1st stage: Latent phase _____hr.

Active phase _____ hr

2nd stage _____mins

3rd stage _____mins

Clinical assessment of scar after 3rd stage of labour

Mode of delivery:

- Normal vaginal
- Outlet forceps
- LSCS indication
- Foetal outcome:

Baby wt. _____ kg

Apgar score → 1 min
Apgar score → 5 min

Post delivery

	½ hr	1st hr	1 ½ hr	2nd hr
Pulse /min				
BP /mm Hg.				
P/A				
P/V				

1st PND PR	2nd PND PR	3rd PND PR
BP.	BP.	BP.
RS/CVS	RS/CVS	RS/CVS
P/A	P/A	P/A
P/V	P/V	P/V

Any complications:

PARTICIPANT INFORMED CONSENT FORM

Introduction:

We hereby request you to participate in our study which is:

"ONE YEAR DESCRIPTIVE STUDY OF OBSTETRIC & FETAL OUTCOME OF POST CAESAREAN PREGNANCY AT K. L. E. S. HOSPITAL, BELGAUM."

Principle Investigators:-

Name: Dr. Amit Mathew

Guide: Dr. B. R. Nilgar

PURPOSE OF THE STUDY

The purpose of this study is to evaluate the obstetric and fetal outcome of present pregnancy in patients with a history of prior LSCS. The factors that will be studied are route of delivery (vaginal/ abdominal), incidence of vaginal delivery following trial of labour, incidence of scar rupture, maternal morbidity and mortality and foetal outcome.

PROCEDURE

This is an observational study and you will be qualified for the study only if you wish to give consent for the study and agree to provide additional background and medical information required. You will be asked about the details of present and past pregnancies and other relevant history. Detailed clinical examination and investigations such as Hb estimation, urine routine, Blood group, HIV, HBsAg, Cross matching will be required to be performed. After the required clinical examination and investigations you will be given the option to undergo trial of labour against elective repeat caesarean section.

The health care that is provided to you by the doctors and the staff in the hospital will remain the same regardless of your choice and whether you are in the study group or not.

Risks

There are no direct risks involved in participating in this study, as it is an observational study not requiring any intervention.

Benefits:

By participating in this study, you will help us to have a better understanding of the outcome and hence the management of pregnancy in patients with a history of prior Caesarean Section. This will in turn help inform future hospital policy and protocol on management of patients with similar presentation.

Financial Incentive For Participation

You will not receive any payment for participation in this study.

Alternatives

If you decide not to participate in the study, the doctor and the staff will provide usual standard care throughout your hospital stay.

Authorization to Publish Results

Results of this study may be published for scientific purposes or presented to scientific groups; however you will not be identified.

Institutional Policy

The doctors and staff of KLES Hospital, Belgaum, will provide facilities and medical attention to you within the limitations of the laws of the state of Karnataka.

Voluntary Participation

Your participation in this study is voluntary and your decision whether or not to participate will not affect the care during current or future relations with doctors and hospital. You are free to discontinue the participation in this study at any time and for any reason.

In case you need any further information or clarification regarding details of this study, you may please contact:

The investigator : Dr. Amit Mathew, PG, Department of OBG, JNMC, Belgaum.

Contact Number: 9880172474

Guide: Dr. B.R. Nilgar, Professor and Head of Unit, Dept of OBG, JNMC, Belgaum.

In case you need any further information regarding your rights as a study participant, you may please contact:

Dr. V. D. Patil, Chairman of Institutional Ethics committee on Human subjects research and Principal, JN Medical College, Belgaum.

Contact No: 0831-2471701

Statement of Consent

I volunteer and consent to participate in this study. I have read the consent or it has been read to me. The study has been fully explained to me and I may ask questions at any time.

I hereby opt for trial of labour/ elective repeat caesarean section.

Participants Name _____

Signature _____

(or left hand thumb impression) _____

Witness name _____

Signature _____

Signature of doctor _____

Date _____

KEY TO MASTER CHART

Ab	Difficulty in opening abdomen due to adhesions
Bl	Difficulty in separation of bladder
BOH	Bad obstetric history
Br	Breech
BT	Blood transfusion
CP	Compound presentation
CPD	Cephalo pelvic disproportion
CPP	Central placenta previa
CT	Cervical tear
Ecl	Eclampsia
FD	Fetal distress
FI	Failed induction
FSB	Fresh still birth
HIV	Human immunodeficiency virus infection
In	Induced with PGE_2 gel
IO	IUGR with oligoamnios
IUGR	Intra uterine growth restriction
MSB	Macerated still birth
NPL	Non progress of labour
NWV	Not willing for VBAC
Om	Adhesions between omentum, peritoneum and bladder

P3L	Previous 3 LSCS
PA	Polyamnios
PD	Post datism
PE	Preeclampsia
PLNLI	Previous LSCS with no living issue
PP/UTI	Puerperal pyrexia due to urinary tract infection
PP/WI	Puerperal pyrexia with wound infection
PROM	Premature rupture of membranes
PT	Perineal tear
PTL	Previous two LSCS
PVD	Previous vaginal delivery
RDS	Respiratory distress syndrome
SD	Scar dehiscence
SPE	Severe pre eclampsia
SVBAC	Prior successful VBAC
TL	Transverse lie
ue	Uneventful
VBAC	Vaginal birth after caesarean delivery
VBAC /F	Forceps assisted vaginal delivery
VBAC/V	Ventouse assisted vaginal delivery
WG	Wound gaping

š®î®±âr y®q®ä

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y®äî®±±Q š®0ýµ²°uÂ®N®Š®±: l¯.Aï±q® î®¾¯q®²ãî¬
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xî®±â B‡µ±Ê œ¯S®² A„Â¯ãš®u®ªå xî®±â „Â¯S®î®Ÿš®±î®¼u®NµÊ As®î¯ î®Ÿš®±î®¼u®NµÊ, l¯N®ÔŠ¬ œ¯S®² Bš®Þqµä‡®± N¯ï±9N®Š® xî®±â BŠµNµ‡®± šµ°îµ‡®±ªå ‡®¾¯î®¼uµ° …u®Œ¯î®nµ‡®¾¯S®±î®¼v©å.

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Œ¯„Â®S®¡®±:

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l¯N®ÔŠ¬ œ¯S®² Nµ.HŒ¬.C. Aš®Þqµä‡®± N¯ï±9N®Š®± xî®±Sµ N®w¯9hN® Š¯cãu® w¯ã‡®± x‡®±î®±S®¡®w®æ‡®± Yoqµé œ¯S®² š¹N®ãS®¡®w®±Ý î®u®Tš®±î®Š®±.

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K0u®± îµ°¡µ xî®±Sµ D A„Â¯ãš®u®ªå „Â¯T‡®¾¯TŠ®±î® œ®Oêw® …SµÌ î®±q®ÙÇ®±Ô î®¾¯Ÿr „µ°N¯u®Šµ x°î®¼ l¯. ïê.m. y¯i°©, Xµ°Š®î®±w¬ HtN®é N®ï±°i œ¯S®² y¯ä0ý®±y¯©N®Š®±, cî¯œ®Š®Œ¯© wµœ®Š®± îµ±mN®Œ¬ N¯Œµ°c, wµœ®Š®± w®S®Š®, „µ¡®S¯ï, Cî®‹Sµ š®0y®O9š®…œ®±u®±.
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w¯w®± w®w®Ý š®æ CXµÐ‰±0u® D A„Â¯ãš®u®ªå y¯Œµ²Ì¡®±ërÙuµÛ°wµ. w¯w®± D A„Â¯ãš®u® …SµÌ š®‹‡®¾¯T Lv As®î¯ D î®±w®î®‹Nµ y®q®äî®w®±Ý w®w®Ý î®±±0uµ
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Sl. No.	Name	Age (Yrs)	I.P. No.	R/U	Gravida	Para	No. of Prev. LSCS	T.O.L. / Elective LSCS	Outcome Vaginal / LSCS	Indication for Repeat LSCS	Scar Dehiscence / Rupture	Intra Op findings	Post delivery Period	Apgar Score		NICU Admssion Y/N with reason	
														1 Min	5 Min		
1	SSH	25	211699	R	2	1	1	Elective	LSCS	PLNLI	Nil	-	ue	7	9	N	
2	SBP	30	213385	R	2	1	1	Elective	LSCS	PLNLI	Nil	-	ue	7	9	N	
3	LRB	30	214042	R	3	2	2	Elective	LSCS	PTL	Nil	Ab	ue	7	9	N	
4	NNK	21	214288	R	2	1	1	Elective	LSCS	PLNLI	Nil	Bl	ue	7	9	N	
5	KAK	25	214074	R	3	2	1/PVD	TOL	VBAC	_	Nil	-	ue	7	8	N	
6	AAK	22	214642	R	2	1	1	TOL/In	VBAC	_	Nil	-	ue	7	9	N	
7	BHD	30	214946	R	2	1	1	Elective	LSCS	PROM	Nil	-	ue	7	9	N	
8	ANM	27	214298	U	2	1	1	Elective	LSCS	NWV	Nil	-	ue	7	9	N	
9	RSG	24	214742	R	3	1	1	T.O.L	LSCS	NPL	Nil	-	ue	7	9	N	
10	SMB	45	215226	R	3	2	2	Elective	LSCS	PTL	Nil	Ab	ue	7	9	N	
11	RAD	30	215262	R	2	1	1	Emergency	LSCS	FD	Nil	-	ue	4	6	Y/RDS	
12	SSB	21	214055	R	2	1	1	Emergency	LSCS	Br	Nil	-	ue	7	9	N	
13	ARK	22	215633	R	2	1	1	T.O.L	LSCS	NPL	Nil	-	PP/UTI	6	8	N	
14	SRG	22	215656	U	2	1	1	T.O.L	LSCS	NPL	Nil	-	ue	7	9	N	
15	HRP	21	215685	R	2	1	1	Elective	LSCS	PLNLI	Nil	Om	WG	7	9	N	
16	BHB	25	215639	R	2	1	1	Elective	LSCS	PLNLI	Nil	Ab	ue	8	9	N	
17	TBS	26	214879	R	2	1	1	Elective	LSCS	NWV	Nil	-	PP/UTI	7	9	N	
18	MK	41	216674	R	4	1	1	Elective	LSCS	IO	Nil	-	ue	7	8	N	
19	SW	23	217338	R	2	1	1	Elective	LSCS	NWV	Nil	Om	PP/WI(WG)	6	7	N	
20	GA	30	217400	R	3	1	1	Elective	LSCS	NWV	Nil	-	BT	7	9	N	
21	MD	22	217446	R	2	1	1	T.O.L/In	LSCS	FI	Nil	-	ue	7	9	N	
22	SM	21	217523	R	2	1	1	Elective	LSCS	NWV	Nil	-	ue	7	9	N	
23	SB	19	217802	R	2	1	1	T.O.L/In	LSCS	FD	Nil	-	ue	7	9	N	
24	KM	34	216352	R	2	1	1	Elective	LSCS	CPP	Nil	Bl	BT	7	9	N	
25	BK	25	218054	R	2	1	1	TOL	VBAC	_	Nil	-	ue	7	9	N	
26	SS	22	218016	R	2	1	1	TOL/In	LSCS	FI	Nil	-	ue	7	9	N	
27	SS	28	218206	U	3	2	2	Elective	LSCS	PTL	Nil	Ab	ue	7	9	N	
28	MK	25	218587	U	2	1	1	TOL	VBAC	_	Nil	-	ue	_	_	FSB	
29	MK	25	218532	R	2	1	1	Elective	LSCS	HIV	Nil	-	ue	7	8	N	

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														1 Min	5 Min		
30	SL	22	218575	R	2	1	1	TOL	LSCS	NPL	Nil	-	BT	7	9	N	
31	NL	25	218604	R	6	5	1/SVBAC	T.O.L	VBAC	_	Nil	-	ue	7	9	N	
32	RP	25	218672	R	2	1	1	TOL	LSCS	NPL	Nil	Ab	ue	7	9	N	
33	MJ	29	218904	R	3	1	1	Elective	LSCS	NWV	Nil	Om	ue	7	9	N	
34	SS	23	218486	R	2	1	1	TOL/In	LSCS	FI	Nil	Ab	ue	7	9	N	
35	SK	24	218797	R	2	1	1	Elective	LSCS	PLNLI	Nil	-	ue	7	9	N	
36	GG	30	218983	R	3	2	1	Elective	LSCS	CPD	Nil	-	ue	7	9	N	
37	GAS	23	219084	R	3	2	1	Elective	LSCS	NWV	Nil	Bl	ue	7	9	N	
38	SS	24	219096	R	2	1	1	TOL	VBAC	_	Nil	-	ue	7	9	N	
39	RC	25	219077	R	2	1	1	TOL	VBAC	_	Nil	-	ue	7	8	N	
40	PP	21	220004	R	3	1	1	Elective	LSCS	NWV	Nil	-	ue	7	8	N	
41	SH	24	220154	R	2	1	1	TOL	VBAC	_	Nil	-	ue	7	9	N	
42	NK	22	220164	R	2	1	1	TOL	VBAC	_	Nil	-	ue	7	9	N	
43	JY	28	220227	R	3	1	1	TOL	VBAC	_	Nil	-	ue	8	9	N	
44	SB	25	220379	R	3	2	1/PVD	TOL	VBAC/V	_	Nil	-	ue	7	9	N	
45	SP	23	220382	U	3	1	1	TOL	VBAC	_	Nil	-	ue	7	9	N	
46	SG	22	220835	R	2	1	1	TOL	LSCS	FD	Nil	Om	ue	7	9	N	
47	AA	25	220840	R	2	1	1	TOL/In	VBAC	_	Nil	-	ue	7	9	N	
48	KS	21	220817	R	3	2	2	Elective	LSCS	PTL	Nil	Ab	ue	7	9	N	
49	LP	20	221102	U	2	1	1	TOL	VBAC	_	Nil	-	ue	7	9	N	
50	KK	32	221187	U	2	1	1	Elective	LSCS	NWV	Nil	-	ue	7	9	N	
51	LK	25	221501	R	3	2	2	Elective	LSCS	PTL	Nil	Bl	ue	7	9	N	
52	LT	25	221543	R	4	3	1	Elective	LSCS	BOH	Nil	-	ue	7	9	N	
53	STW	25	221741	R	2	1	1	Elective	LSCS	PLNLI	Nil	Ab	ue	7	9	N	
54	BAK	22	221586	R	2	1	1	Elective	LSCS	NWV	Nil	-	ue	7	9	N	
55	RI	22	221978	R	2	1	1	Elective	LSCS	NWV	Nil	-	ue	7	9	N	
56	VD	32	222290	R	3	2	2	Elective	LSCS	PTL	Nil	Ab	ue	7	9	N	
57	RP	25	222331	R	3	2	1/PVD	TOL	VBAC	_	Nil	-	ue	7	9	N	
58	GH	25	222543	U	3	2	1	Elective	LSCS	TL	Nil	-	BT	7	9	N	

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														1 Min	5 Min		
59	MG	27	222600	R	3	1	1	Elective	LSCS	NWV	Nil	-	ue	5	7	N	
60	NG	21	223209	U	2	1	1	TOL	VBAC	_	Nil	-	ue	_	_	MSB	
61	SC	24	222694	R	2	1	1	Elective	LSCS	NWV	Nil	Ab	ue	7	9	N	
62	SM	23	223229	R	2	1	1	TOL/In	VBAC	_	Nil	-	ue	7	8	N	
63	MP	22	223269	R	2	1	1	Elective	LSCS	CPD	Nil	-	ue	7	9	N	
64	SK	22	223307	U	2	1	1	TOL	LSCS	FD	Nil	Om	ue	7	9	N	
65	MP	23	223106	R	2	1	1	TOL	LSCS	FD	Nil	-	ue	7	9	N	
66	YG	25	223281	U	3	2	1/SVBAC	TOL	VBAC	_	Nil	-	ue	7	9	N	
67	SP	24	221918	R	2	1	1	Elective	LSCS	PLNLI	Nil	-	ue	7	8	N	
68	JP	32	223572	U	2	1	1	TOL	LSCS	FD	SD	Scar dehiscence	ue	7	9	N	
69	SJ	26	223604	R	2	1	1	TOL	VBAC	_	Nil	-	ue	6	9	N	
70	MG	24	223248	R	2	1	1	TOL	LSCS	FD	Nil	Bl	WG	7	9	N	
71	LS	25	223778	R	2	1	1	TOL	LSCS	FD	Nil	-	ue	8	9	N	
72	LM	23	223787	U	3	2	2	Emergency	LSCS	FD	Nil	-	WG	7	9	N	
73	SW	25	222636	R	2	1	1	Elective	LSCS	NWV	Nil	Ab	ue	7	9	N	
74	SM	25	223926	R	2	1	1	TOL	LSCS	FD	Nil	-	ue	7	9	N	
75	HK	27	223706	R	4	3	1/PVD	TOL	VBAC/V	_	Nil	-	ue	6	9	N	
76	VA	28	224066	R	4	1	1	TOL	VBAC/F	_	Nil	-	CT	6	8	N	
77	GK	25	223965	R	2	1	1	Elective	LSCS	Br	Nil	Ab	ue	8	9	N	
78	AS	24	223902	R	2	1	1	TOL/In	VBAC	_	Nil	-	ue	8	9	N	
79	KM	22	224343	U	2	1	1	TOL/In	LSCS	FI	Nil	Om	PP/WI(WG)	7	9	N	
80	BM	20	224669	R	2	1	1	Elective	LSCS	PLNLI	Nil	-	ue	7	9	N	
81	SK	25	224850	R	2	1	1	Elective	LSCS	NWV	Nil	Bl	ue	7	9	N	
82	KP	24	224847	R	2	1	1	TOL	LSCS	CPD	Nil	-	ue	7	9	N	
83	MS	25	224870	R	2	1	1	Elective	LSCS	NWV	Nil	Ab	ue	7	9	N	
84	AB	25	225229	U	3	1	1	Elective	LSCS	NWV	Nil	-	ue	7	9	N	
85	PS	25	225247	U	4	2	1/PVD	TOL	VBAC	_	Nil	-	ue	7	9	N	
86	SG	23	225271	R	2	1	1	TOL	LSCS	NPL	Nil	Ab	WG	7	9	N	
87	LK	20	225620	U	2	1	1	TOL	LSCS	CPD	Nil	-	ue	7	9	N	

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														1 Min	5 Min		
88	SG	24	225735	U	2	1	1	Emergency	LSCS	SPE	Nil	-	ue	7	9	N	
89	LB	25	225746	U	2	1	1	TOL	VBAC	_	Nil	-	ue	7	9	N	
90	ST	24	225717	R	3	1	1	Elective	LSCS	NWV	Nil	-	ue	8	9	N	
91	RM	25	226092	R	2	1	1	Elective	LSCS	PLNLI	Nil	-	ue	7	9	N	
92	SS	20	226212	R	2	1	1	Elective	LSCS	NWV	Nil	Ab	ue	7	9	N	
93	MM	28	226501	R	3	2	1/PVD	TOL	LSCS	PROM	Nil	Ab	PP/WI(WG)	7	9	N	
94	BP	21	596427	R	2	1	1	Elective	LSCS	NWV	Nil	-	ue	7	9	N	
95	MP	28	226854	U	2	1	1	Elective	LSCS	IUGR	Nil	Bl	ue	7	9	N	
96	SC	22	226980	U	3	2	1/SVBAC	TOL	VBAC	_	Nil	-	ue	7	9	N	
97	SA	24	227004	U	2	1	1	TOL	VBAC	_	Nil	-	PT	7	9	N	
98	SP	28	227082	U	3	2	2	Elective	LSCS	TL	Nil	Bl	ue	7	9	N	
99	AC	25	227526	R	2	1	1	TOL	VBAC	_	Nil	-	ue	7	9	N	
100	MJ	25	227069	R	5	2	1/SVBAC	TOL	VBAC	_	Nil	-	ue	7	9	N	
101	SC	28	227741	R	3	2	1/PVD	TOL	VBAC	_	Nil	-	ue	7	9	N	
102	SC	30	228167	R	4	2	1/PVD	TOL	VBAC	_	Nil	-	ue	6	9	N	
103	SC	20	228302	R	2	1	1	Elective	LSCS	Br	Nil	-	ue	7	9	N	
104	MB	25	228334	U	4	2	1	Elective	LSCS	Ecl	Nil	-	ue	6	9	N	
105	LK	21	228486	U	2	1	1	TOL	VBAC	_	Nil	-	ue	7	9	N	
106	SR	20	227937	U	2	1	1	Elective	LSCS	NWV	Nil	Om	ue	7	9	N	
107	PM	25	228513	R	2	1	1	Elective	LSCS	NWV	Nil	Ab	ue	7	9	N	
108	SN	25	227953	R	3	2	2	Elective	LSCS	PTL	Nil	-	ue	7	9	N	
109	ST	20	229194	R	2	1	1	TOL	VBAC	_	Nil	-	ue	7	9	N	
110	NP	24	228232	R	3	2	1	TOL	LSCS	FD	Nil	Bl	ue	4	6	Y/RDS	
111	SU	19	229263	U	2	1	1	TOL	VBAC	_	Nil	-	ue	6	8	N	
112	NK	27	228687	R	2	1	1	Elective	LSCS	NWV	Nil	Ab	ue	7	9	N	
113	RH	22	226027	R	4	2	2	Elective	LSCS	PTL	Nil	Bl	ue	7	9	N	
114	JS	25	229414	U	2	1	1	Elective	LSCS	IUGR	Nil	-	ue	7	9	N	
115	LM	25	229748	R	2	1	1	TOL	LSCS	NPL	Nil	-	ue	7	9	N	
116	ST	20	229753	R	2	1	1	TOL	VBAC	_	Nil	-	ue	7	9	N	

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														1 Min	5 Min		
117	AK	35	229899	R	2	1	1	TOL/In	LSCS	FI	Nil	-	ue	7	9	N	
118	SK	26	229902	R	2	1	1	Elective	LSCS	PD	Nil	Ab	ue	7	9	N	
119	NJ	29	230625	R	3	2	1/PVD	TOL	LSCS	FD	Nil	-	ue	7	9	N	
120	GM	30	230721	R	2	1	1	TOL	LSCS	FD	Nil	-	ue	6	9	N	
121	SL	25	230914	R	3	1	1	TOL	VBAC/V	_	Nil	-	ue	7	9	N	
122	KM	25	231085	R	2	1	1	Elective	LSCS	Br	Nil	Ab	ue	7	9	N	
123	PA	23	231173	R	2	1	1	TOL	LSCS	NPL	Nil	-	PP/UTI	7	8	N	
124	BG	21	231470	R	2	1	1	TOL	LSCS	FD	Nil	Om	ue	7	9	N	
125	RS	20	231408	U	2	1	1	TOL	LSCS	FD	Nil	-	ue	7	9	N	
126	NS	22	231381	R	3	1	1	Elective	LSCS	NWV	Nil	-	ue	7	9	N	
127	SK	22	231559	R	2	1	1	Elective	LSCS	NWV	Nil	Ab	ue	7	9	N	
128	SC	20	231915	R	2	1	1	TOL	VBAC	_	Nil	-	ue	_	_	FSB	
129	RN	30	231993	R	3	1	1	Elective	LSCS	IO	Nil	-	ue	7	9	N	
130	BY	24	232217	R	2	1	1	TOL	VBAC	_	Nil	-	ue	7	9	N	
131	RB	31	231419	R	2	1	1	Elective	LSCS	NWV	Nil	-	ue	7	9	N	
132	NP	21	232018	R	3	2	1	Elective	LSCS	Br	Nil	Ab	ue	7	9	N	
133	DR	20	232787	R	2	1	1	TOL	LSCS	FD	Nil	-	ue	7	9	N	
134	NP	24	232625	R	2	1	1	Elective	LSCS	NWV	Nil	-	ue	7	8	N	
135	DP	31	231685	R	2	1	1	Elective	LSCS	NWV	Nil	-	ue	7	9	N	
136	KK	26	233101	R	6	1	1	TOL	VBAC	_	Nil	-	ue	7	9	N	
137	SV	24	233435	R	2	1	1	TOL	LSCS	FD	Nil	Bl	ue	5	7	N	
138	NP	35	233714	U	3	1	1	TOL	LSCS	NPL	Nil	Ab	ue	7	9	N	
139	PM	24	233803	R	2	1	1	TOL	VBAC	_	Nil	-	ue	7	9	N	
140	YT	25	234004	U	4	3	2	Elective	LSCS	PTL	Nil	-	ue	7	9	N	
141	MS	20	233956	R	2	1	1	TOL	LSCS	NPL	Nil	-	ue	6	7	N	
142	VP	24	233949	R	3	2	2	Elective	LSCS	PTL	Nil	-	ue	8	9	N	
143	CR	30	234403	R	3	2	1/SVBAC	TOL	VBAC	_	Nil	-	ue	7	9	N	
144	RY	24	234602	U	2	1	1	Elective	LSCS	PLNLI	Nil	Ab	ue	7	9	N	
145	BM	24	234963	R	3	2	2	Elective	LSCS	PTL	Nil	-	ue	7	9	N	

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														1 Min	5 Min		
146	MP	23	235060	R	2	1	1	Elective	LSCS	PLNLI	Nil	-	ue	7	9	N	
147	SK	30	235159	R	3	1	1	Elective	LSCS	NWV	Nil	-	ue	6	8	N	
148	KT	23	235435	R	2	1	1	Emergency	LSCS	CP	Nil	-	ue	7	9	N	
149	HY	25	235496	R	2	1	1	TOL	LSCS	NPL	Nil	-	ue	7	9	N	
150	SK	28	235100	R	3	1	1	TOL	LSCS	FD	Nil	-	ue	7	9	N	
151	AD	22	233343	R	2	1	1	TOL	LSCS	FD	Nil	Ab	ue	7	9	N	
152	NB	25	235624	R	2	1	1	TOL	LSCS	FD	Nil	-	ue	7	9	N	
153	PH	25	234899	U	2	1	1	Elective	LSCS	NWV	Nil	-	ue	7	8	N	
154	SJ	30	235533	R	5	2	2	Elective	LSCS	PTL	Nil	Bl	ue	7	9	N	
155	SC	25	236304	U	2	1	1	TOL	VBAC/F	_	Nil	-	CT	7	9	N	
156	AK	25	236285	R	2	1	1	TOL	LSCS	FD	Nil	-	BT	7	9	N	
157	DK	22	236360	R	2	1	1	TOL	LSCS	FD	Nil	-	WG	7	9	N	
158	SH	22	236590	R	2	1	1	TOL	LSCS	NPL	Nil	Ab	ue	7	9	N	
159	SN	35	236511	R	4	2	1/PVD	TOL/In	LSCS	FD	Nil	-	ue	7	8	N	
160	IK	23	236625	R	3	1	1	TOL	LSCS	NPL	Nil	-	ue	7	9	N	
161	LB	36	235547	U	3	2	2	Elective	LSCS	PTL	Nil	Om	ue	7	9	N	
162	JF	29	237436	R	3	2	1/PVD	TOL	LSCS	NPL	Nil	-	ue	7	9	N	
163	PP	25	237584	R	3	2	2	Elective	LSCS	PTL	Nil	-	ue	7	9	N	
164	NM	23	237570	U	2	1	1	TOL	LSCS	FD	Nil	-	ue	7	9	N	
165	SG	22	237605	R	2	1	1	TOL	LSCS	FD	Nil	-	ue	7	9	N	
166	MR	27	237625	R	4	3	1/PVD	TOL	VBAC	_	Nil	-	ue	7	9	N	
167	LK	32	237749	R	3	2	2	Elective	LSCS	PTL	Nil	Ab	ue	7	9	N	
168	AU	25	237117	R	3	1	1	Elective	LSCS	PE	Nil	-	ue	7	9	N	
169	MS	22	238605	R	5	1	1	Elective	LSCS	NWV	Nil	Bl	ue	7	8	N	
170	ADB	23	238317	R	3	2	1/SVBAC	TOL	VBAC	_	Nil	-	ue	7	9	N	
171	KPP	30	238593	U	2	1	1	TOL	LSCS	FD	Nil	Ab	PP/WI(WG)	7	9	N	
172	RVY	24	238641	R	3	1	1	TOL	LSCS	FD	Nil	-	ue	7	9	N	
173	AJJ	24	238759	R	2	1	1	TOL	VBAC/V	_	Nil	-	PT	7	9	N	
174	GAP	22	238927	U	3	2	1/SVBAC	TOL	LSCS	FD	Nil	Om	ue	7	9	N	

Sl. No.	Name	Age (Yrs)	I.P. No.	R/U	Gravida	Para	No. of Prev. LSCS	T.O.L. / Elective LSCS	Outcome Vaginal / LSCS	Indication for Repeat LSCS	Scar Dehiscence / Rupture	Intra Op findings	Post delivery Period	Apgar Score		NICU Admssion Y/N with reason
														1 Min	5 Min	
175	SPA	22	238934	U	3	2	1/PVD	TOL	VBAC	_	Nil	-	ue	7	9	N
176	JGS	25	239026	R	2	1	1	TOL	LSCS	FD	Nil	-	WG	7	9	N
177	VMP	26	239148	R	2	1	1	Elective	LSCS	Br	Nil	-	ue	7	9	N
178	RD	33	239084	R	2	1	1	Elective	LSCS	NWV	Nil	-	ue	7	9	N
179	ACM	25	239305	R	3	2	2	Elective	LSCS	PTL	Nil	Ab	ue	7	9	N
180	VSB	25	238747	R	3	1	1	TOL/In	LSCS	FD	Nil	-	WG	6	8	N
181	SAK	28	239584	R	2	1	1	TOL	LSCS	NPL	Nil	Ab	PP/UTI	7	9	N
182	SSS	26	239841	R	3	2	1/PVD	TOL	LSCS	SD	SD	Scar dehiscence	ue	7	9	N
183	BH	25	239852	R	3	2	1/PVD	TOL	LSCS	NPL	Nil	-	ue	7	9	N
184	LSM	22	240197	R	5	3	1/SVBAC	TOL	VBAC	-	Nil	-	ue	7	9	N
185	DP	25	240313	R	2	1	1	TOL	LSCS	FD	Nil	Om	WG	7	9	N
186	MSC	35	240336	R	2	1	1	TOL	VBAC	-	Nil	-	ue	7	8	N
187	SAG	20	240929	U	2	1	1	Elective	LSCS	NWV	Nil	Ab	ue	7	9	N
188	SSP	30	241134	U	2	1	1	TOL	LSCS	NPL	Nil	-	ue	7	9	N
189	CBD	26	241665	R	2	1	1	Elective	LSCS	CPD	Nil	Bl	ue	7	9	N
190	CR	23	241762	R	2	1	1	TOL	VBAC	-	Nil	-	ue	7	9	N
191	NRP	23	241907	U	2	1	1	TOL	LSCS	NPL	Nil	-	ue	7	9	N
192	CP	23	241968	R	5	3	1	Elective	LSCS	BOH	Nil	-	BT	6	8	N
193	PPA	25	242069	R	2	1	1	Elective	LSCS	CPP	Nil	Ab	ue	7	9	N
194	VG	34	241985	R	2	1	1	Elective	LSCS	NWV	Nil	-	ue	7	9	N
195	PPM	23	242164	R	2	1	1	TOL	VBAC/V	-	Nil	-	ue	7	8	N
196	KBP	23	242300	R	3	2	2	Elective	LSCS	PTL	Nil	Om	ue	7	9	N
197	RNG	24	242532	R	2	1	1	Elective	LSCS	CPD	Nil	Ab	ue	7	8	N
198	SBB	29	242685	R	2	1	1	Elective	LSCS	PLNLI	Nil	-	ue	7	9	N
199	STG	26	242696	U	2	1	1	TOL	LSCS	FD	Nil	-	WG	7	9	N
200	RSG	25	242704	U	3	2	1/PVD	TOL	VBAC	-	Nil	-	ue	7	9	N
201	RSJ	20	242841	R	2	1	1	TOL	LSCS	FD	Nil	Ab	ue	7	9	N
202	DRK	22	242500	R	3	2	1/PVD	TOL	LSCS	FD	Nil	-	ue	7	8	N
203	CVJ	24	242382	U	2	1	1	TOL	LSCS	FD	Nil	Bl	ue	7	9	N

Sl. No.	Name	Age (Yrs)	I.P. No.	R/U	Gravida	Para	No. of Prev. LSCS	T.O.L. / Elective LSCS	Outcome Vaginal / LSCS	Indication for Repeat LSCS	Scar Dehiscence / Rupture	Intra Op findings	Post delivery Period	Apgar Score		NICU Admssion Y/N with reason
														1 Min	5 Min	
204	SBG	25	243067	R	2	1	1	TOL/In	LSCS	FD	Nil	-	ue	7	9	N
205	LSM	21	243382	R	2	1	1	Elective	LSCS	NWV	Nil	-	ue	7	9	N
206	NNH	23	243184	R	2	1	1	Elective	LSCS	IO	Nil	-	ue	6	8	Y/IUGR
207	SAK	25	243691	R	2	1	1	TOL	LSCS	FD	Nil	-	ue	7	9	N
208	SYG	22	243199	R	2	1	1	TOL	VBAC	-	Nil	-	ue	7	9	N
209	MPK	20	243741	R	2	1	1	TOL	LSCS	FD	Nil	Ab	ue	6	9	N
210	VPL	25	243757	R	2	1	1	TOL	LSCS	FD	Nil	-	ue	7	9	N
211	ADS	23	243942	U	2	1	1	Elective	LSCS	NWV	Nil	Ab	ue	7	9	N
212	MSC	25	244000	R	2	1	1	Elective	LSCS	NWV	Nil	-	ue	7	9	N
213	TDK	22	243419	U	2	1	1	TOL/In	LSCS	NPL	Nil	Bl	PP/UTI	7	9	N
214	RSS	25	244125	R	2	1	1	TOL	VBAC	-	Nil	-	ue	7	9	N
215	SSA	22	244297	R	2	1	1	TOL	LSCS	NPL	Nil	-	PP/WI(WG)	7	9	N
216	SLN	22	244534	R	2	1	1	TOL	LSCS	CPD	Nil	Ab	ue	7	9	N
217	BST	29	244475	R	2	1	1	Elective	LSCS	NWV	Nil	-	ue	7	9	N
218	TRB	24	244628	R	3	2	1	Elective	LSCS	TL	Nil	-	ue	-	-	FSB
219	DDG	30	244635	U	2	1	1	TOL	LSCS	FD	Nil	-	BT	7	9	N
220	SVK	27	244669	R	2	1	1	TOL	LSCS	CPD	Nil	Om	ue	7	9	N
221	RRP	23	244918	R	2	1	1	TOL	LSCS	FD	Nil	-	ue	7	9	N
222	KLN	22	245056	R	3	2	1/SVBAC	TOL	LSCS	NPL	Nil	-	ue	7	9	N
223	SSH	24	245192	R	2	1	1	Elective	LSCS	PROM	Nil	Ab	ue	7	9	N
224	GAB	35	245226	R	2	1	1	Elective	LSCS	PLNLI	Nil	-	ue	7	9	N
225	SDK	28	245417	R	2	1	1	Elective	LSCS	PLNLI	Nil	-	ue	7	9	N
226	MRP	25	245360	R	3	1	1	Elective	LSCS	NWV	Nil	-	ue	7	8	N
227	RVK	23	245511	R	2	1	1	TOL	LSCS	FD	Nil	Ab	ue	7	9	N
228	SAA	24	245665	R	2	1	1	TOL	LSCS	SD	SD	Scar dehiscence	ue	7	8	N
229	SVG	20	245751	R	2	1	1	TOL	LSCS	FD	Nil	-	ue	7	9	N
230	VNB	26	246237	R	2	1	1	TOL	VBAC	-	Nil	-	ue	7	9	N
231	SRS	26	246352	R	3	2	2	Elective	LSCS	PTL	Nil	Bl	ue	7	9	N
232	SIM	25	246076	R	3	1	1	TOL	LSCS	SD	SD	Scar	ue	8	9	N

Sl. No.	Name	Age (Yrs)	I.P. No.	R/U	Gravida	Para	No. of Prev. LSCS	T.O.L. / Elective LSCS	Outcome Vaginal / LSCS	Indication for Repeat LSCS	Scar Dehiscence / Rupture	Intra Op findings	Post delivery Period	Apgar Score		NICU Admssion Y/N with reason
														1 Min	5 Min	
233	SK	25	246448	R	3	2	2	Elective	LSCS	PTL	Nil	Om	ue	7	9	N
234	ND	25	246411	R	2	1	1	Elective	LSCS	NWV	Nil	-	ue	8	9	N
235	BH	23	247042	R	4	2	2	Elective	LSCS	PTL	Nil	Ab	ue	4	6	Y/RDS
236	RS	23	247253	U	3	1	1	TOL	VBAC/F	-	Nil	-	ue	7	9	N
237	GH	27	247409	U	2	1	1	TOL	LSCS	FD	Nil	-	PP/WI(WG)	7	9	N
238	LG	24	247478	R	2	1	1	TOL	VBAC	-	Nil	-	ue	7	9	N
239	RP	26	247622	R	2	1	1	TOL	LSCS	CPD	Nil	-	ue	7	9	N
240	LL	26	247318	R	3	2	2	Elective	LSCS	PTL	Nil	Ab	ue	8	9	N
241	GK	23	247512	R	2	1	1	TOL	LSCS	FD	Nil	Ab	ue	7	9	N
242	GC	22	247484	R	2	1	1	Elective	LSCS	NWV	Nil	-	ue	7	9	N
243	SAM	22	248007	R	2	1	1	TOL	VBAC	-	Nil	-	PT	6	8	N
244	MVB	22	247944	R	2	1	1	Elective	LSCS	CPD	Nil	-	ue	7	9	N
245	SPK	23	248263	R	3	2	1/PVD	TOL	VBAC	-	Nil	-	ue	7	9	N
246	PPP	22	248464	R	2	1	1	TOL	LSCS	NPL	Nil	Ab	ue	7	9	N
247	SFS	29	248326	R	3	1	1	Elective	LSCS	PLNLI	Nil	-	ue	7	9	N
248	LAC	21	248148	R	2	1	1	Elective	LSCS	Br	Nil	-	ue	7	9	N
249	AJK	27	248654	R	4	3	3	Elective	LSCS	P3L	Nil	Om	BT	7	9	N
250	MST	24	248785	R	3	1	1	TOL	VBAC	-	Nil	-	ue	7	9	N
251	VJP	24	248802	R	2	1	1	TOL	VBAC	-	Nil	-	ue	8	9	N
252	SAD	23	248407	R	2	1	1	Elective	LSCS	NWV	Nil	-	ue	7	9	N
253	CCA	22	248916	R	3	2	2	Elective	LSCS	PTL	Nil	Bl	ue	7	9	N
254	PRJ	31	248890	R	5	2	2	Elective	LSCS	PTL	Nil	Ab	ue	8	9	N
255	RRS	27	249221	R	2	1	1	TOL	VBAC	-	Nil	-	ue	7	9	N
256	BAH	23	248927	R	2	1	1	TOL	LSCS	FD	Nil	-	PP/UTI	7	9	N
257	VSR	24	248480	R	2	1	1	TOL	VBAC	-	Nil	-	ue	7	8	N
258	AVD	26	249523	R	2	1	1	TOL	VBAC	-	Nil	-	ue	7	8	N
259	RUG	25	249661	R	2	1	1	TOL	VBAC/F	-	Nil	-	ue	7	8	N
260	LBT	22	249676	R	2	1	1	TOL	VBAC	-	Nil	-	ue	7	9	N
261	MNP	25	249822	R	2	1	1	TOL	VBAC	-	Nil	-	ue	7	9	N

Sl. No.	Name	Age (Yrs)	I.P. No.	R/U	Gravida	Para	No. of Prev. LSCS	T.O.L. / Elective LSCS	Outcome Vaginal / LSCS	Indication for Repeat LSCS	Scar Dehiscence / Rupture	Intra Op findings	Post delivery Period	Apgar Score		NICU Admssion Y/N with reason
														1 Min	5 Min	
262	SAH	24	249782	R	2	1	1	Elective	LSCS	HIV	Nil	-	ue	9	9	N
263	USB	31	249180	R	3	1	1	TOL/In	LSCS	FI	Nil	Ab	ue	7	9	N
264	SJ	23	250052	R	2	1	1	TOL/In	LSCS	FI	Nil	-	ue	7	9	N
265	UW	26	250192	R	2	1	1	TOL	VBAC	-	Nil	-	ue	8	9	N
266	SM	23	250340	R	2	1	1	TOL	VBAC/V	-	Nil	-	ue	7	9	N
267	SK	26	250115	U	2	1	1	TOL	LSCS	FD	Nil	Ab	ue	7	9	N
268	MPK	24	250326	R	2	1	1	TOL	LSCS	FD	Nil	Bl	ue	7	9	N
269	VN	24	250618	R	3	1	1	TOL	LSCS	NPL	Nil	-	ue	7	9	N
270	LA	25	250655	R	2	1	1	TOL	LSCS	NPL	Nil	Om	ue	8	9	N
271	NP	30	250755	R	3	1	1	TOL	VBAC	-	Nil	-	ue	7	8	N
272	NI	24	250724	R	2	1	1	TOL	LSCS	NPL	Nil	-	ue	6	9	N
273	LC	23	250541	R	2	1	1	Elective	LSCS	NWV	Nil	-	ue	7	9	N
274	LB	25	250935	R	3	2	1	Elective	LSCS	NWV	Nil	Bl	ue	7	9	N
275	SS	32	250701	R	2	1	1	Elective	LSCS	NWV	Nil	Ab	ue	7	9	N
276	PP	24	251033	R	2	1	1	TOL	VBAC	-	Nil	-	ue	7	9	N
277	MD	22	251095	U	2	1	1	TOL	VBAC	-	Nil	-	ue	7	9	N
278	LK	20	251110	R	3	2	2	Elective	LSCS	PTL	Nil	Bl	ue	7	9	N
279	MK	24	251165	R	3	2	2	Elective	LSCS	PTL	Nil	Om	ue	7	9	N
280	AP	30	251447	R	2	1	1	Emergency	LSCS	Br	Nil	-	ue	7	9	N
281	MMI	20	251989	U	4	3	1/PVD	TOL	LSCS	FD	Nil	Ab	ue	7	8	N
282	RM	20	252328	R	2	1	1	TOL	VBAC	-	Nil	-	ue	7	9	N
283	SV	22	252378	R	2	1	1	TOL	LSCS	SD	SD	Scar dehiscence	ue	7	9	N
284	KDH	25	251544	R	2	1	1	TOL/In	LSCS	FD	Nil	-	ue	7	9	N
285	SRC	30	252562	R	3	1	1	Elective	LSCS	NWV	Nil	-	ue	7	9	N
286	ZSD	25	252647	U	2	1	1	TOL	LSCS	FD	Nil	Ab	ue	6	8	N
287	SKS	25	252613	R	3	2	2	Elective	LSCS	PTL	Nil	Bl	ue	7	9	N
288	VYJ	24	252771	R	3	1	1	TOL	LSCS	NPL	Nil	-	ue	7	9	N
289	SRU	20	252863	R	2	1	1	Elective	LSCS	NWV	Nil	-	ue	7	9	N
290	LGA	25	253044	U	2	1	1	TOL	LSCS	FD	Nil	-	ue	5	8	Y/RDS

Sl. No.	Name	Age (Yrs)	I.P. No.	R/U	Gravida	Para	No. of Prev. LSCS	T.O.L. / Elective LSCS	Outcome Vaginal / LSCS	Indication for Repeat LSCS	Scar Dehiscence / Rupture	Intra Op findings	Post delivery Period	Apgar Score		NICU Admssion Y/N with reason
														1 Min	5 Min	
291	PPN	29	253333	R	2	1	1	TOL	LSCS	NPL	Nil	Om	ue	7	9	N
292	SK	22	253381	R	2	1	1	TOL	VBAC	-	Nil	-	ue	-	-	FSB
293	KM	26	253487	R	2	1	1	Elective	LSCS	NWV	Nil	Ab	ue	7	9	N
294	SK	22	253726	R	3	2	1/PVD	TOL	LSCS	FD	Nil	-	ue	7	9	N
295	YD	26	254257	R	2	1	1	TOL	VBAC	-	Nil	-	ue	7	9	N
296	KP	24	254128	R	2	1	1	Elective	LSCS	NWV	Nil	-	ue	7	9	N
297	VC	25	254389	U	3	1	1	TOL	LSCS	FD	Nil	-	ue	7	9	N
298	SRB	32	254235	U	2	1	1	Elective	LSCS	SPE	Nil	-	ue	7	9	N
299	AWJ	21	254073	R	2	1	1	TOL	VBAC	-	Nil	-	ue	7	9	N
300	DRH	20	254102	U	3	1	1	Elective	LSCS	CPP	Nil	Ab	ue	7	9	N
301	SGK	33	254121	R	2	1	1	Elective	LSCS	PA	Nil	-	ue	7	9	N
302	VVP	24	254697	R	3	2	2	Elective	LSCS	PTL	Nil	Bl	ue	7	9	N
303	LVB	22	254299	R	3	2	1/PVD	TOL	VBAC	-	Nil		ue	-	-	MSB
304	NS	28	254932	R	2	1	1	TOL	VBAC	-	Nil	-	ue	7	9	N
305	RN	32	255063	U	2	1	1	TOL	VBAC	-	Nil	-	ue	7	9	N
306	MJ	24	254266	R	2	1	1	TOL/In	LSCS	FI	Nil	-	PP/WI(WG)	7	9	N
307	LP	23	255384	R	3	1	1	TOL	VBAC	-	Nil	-	ue	7	9	N
308	GC	28	255389	R	2	1	1	TOL	VBAC/V	-	Nil	-	ue	7	9	N
309	RS	25	255549	R	2	1	1	TOL	VBAC	-	Nil	-	ue	7	9	N
310	NSB	26	255801	R	3	2	1/PVD	TOL	VBAC	-	Nil	-	ue	7	9	N
311	ASD	26	255926	U	3	2	2	Elective	LSCS	PTL	Nil	Ab	ue	7	9	N
312	SLS	20	255923	R	2	1	1	TOL	VBAC/F	-	Nil	-	ue	7	9	N
313	MIN	24	255337	R	2	1	1	Elective	LSCS	CPD	Nil	-	ue	7	9	N
314	AAA	25	255780	R	2	1	1	Elective	LSCS	NWV	Nil	-	ue	7	9	N
315	KBS	25	256025	U	3	2	2	Elective	LSCS	PTL	Nil	Om	ue	7	9	N
316	RBK	32	256323	R	4	3	1/SVBAC	TOL	VBAC	-	Nil	-	ue	7	9	N
317	JMN	20	256606	U	3	1	1	TOL	VBAC	-	Nil	-	ue	7	9	N
318	KKB	22	256795	R	2	1	1	Elective	LSCS	NWV	Nil	-	ue	7	9	N
319	BMA	24	256857	U	2	1	1	TOL	VBAC	-	Nil	-	ue	7	9	N

Sl. No.	Name	Age (Yrs)	I.P. No.	R/U	Gravida	Para	No. of Prev. LSCS	T.O.L. / Elective LSCS	Outcome Vaginal / LSCS	Indication for Repeat LSCS	Scar Dehiscence / Rupture	Intra Op findings	Post delivery Period	Apgar Score		NICU Admssion Y/N with reason
														1 Min	5 Min	
320	BMB	22	256927	R	2	1	1	TOL	LSCS	FD	Nil	-	ue	7	9	N