Difficulties Encountered at Caesarean Section

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Objective: To evaluate common difficulties encountered by the trainee registrars at C/Section. **Design:** An observational study. **Place and Duration of Study:** The Department of Gynae and Obstetrics Unit-II SIMS/Services Hospital, Lahore from 16th February to 16th September 2005. **Patients and methods:** One hundred cases of C/Section both emergency and elective were included. Almost all were done by trainee registrars and supervised by Senior Registrars. Common difficulties faced by trainees at C/Section were noted. **Results:** Out of 100, 59 were elective and 41 were emergency C/Sections. All were lower uterine segment C/Sections done on term or near term pregnancies. The commonest indication was previous scar (69) while 31 were primary C/Sections. The major problems encountered included difficulty to approach lower uterine segment due to adhesions formation (45), difficulty in delivering the baby from uterus (39) and the problem faced while securing haemostasis (31). One problem not directly related to C/Section noted was pricks to the surgeons in Hepatitis B & C positive patients. Three cases were noted leading to frustration and depression in the involved doctors.
Key words: Cesarean section, difficulties, trainees.

Cesarean section is delivery of a baby through an incision in the woman's abdomen and womb, rather than through the birth canal. C/Section is the most common surgical procedure performed by the trainee registrars in emergency as well as an elective procedure. The World Health Organization (WHO) has said that no country can justify having a C/Section rate greater than 10%-15%. Despite this advice in the past 20 years, C/Section rates have risen to nearly 25% in some countries[1]. The safety of lower uterine segment technique, the development of skilled anaesthesia especially regional, the availability of blood products and antibiotics and acceptance of this procedure by the women has all contributed to the rise in the incidence of cesarean birth over the past 50 years. The reported maternal mortality of C/Section is two to four times greater than tl at for vaginal birth[1].

Junior doctors perform C/Section from the beginning of their training. Though common, C/Section is not without risks and complications. Depending upon indications, circumstances in which C/Section is performed i.e. elective or emergency and experience of the surgeon, each case has its own complications and difficulties.

With the increasing rate of C/Section, now leading indication for C/Section is the previously scarred uterus[2]. Accordingly, the junior doctors encounter problems due to adhesions in peritoneal cavity most commonly. Other problems include difficulty in delivering the baby from the uterus with resulting trauma to the baby and asphyxia and difficulties faced while securing haemostasis.

This study was conducted to assess the difficulties encountered at C/Section so that a unit policy can be made to alleviate these difficulties and trainees can perform C/Section more efficiently and in this way we can reduce maternal mortality and morbidity.

Patients and methods:

The study was conducted at the Department of Gynae Obstetrics Unit-II SIMS/Services Hospital, Lahore from 16th February to 16th September 2005.

All the cases were admitted through OPD for elective surgery, but 41 cases have to be done in emergency due to some problem e.g. onset of labour pains, foetal distress, uncontrolled PIH, APH etc while admitted in ward before elective theatre list. All were lower uterine segment C/Section and almost all were done by the trainees and supervised by Senior Registrars. Registrars were given C/Section to perform according to their competence and duration of training. Data regarding the C/Section and difficulties encountered at C/Section was noted on a proforma and results obtained by calculating percentage values and presented in the form of tables.

Results:

During the study period, 100 patients were admitted through OPD for C/Section. All were term or near term pregnancies. 59 cases were elective C/Sections while 41 had to be done in emergency.

The most common indication for C/Section noted during study was a previous Scar (69). 31 C/Section were primary C/Sections done for different indications, the most common being for breech presentation (primibreech, footling breech, breech with hyperextended foetal head). Other indications for primary C/Sections were uncontrolled PIH (03), APH/ placenta previa (02), twin pregnancy (02) (one twin pregnancy with a previous scar and 2nd for 1st baby with breech presentation), foetal distress 04 (with nonreactive CTG), post-term pregnancy with poor BPP (01), CPD (02), IUGR (02) and hydrocephalus (01).95% C/Sections were done under spinal anaesthesia while only 5% were given general

anaesthesia. Average time taken by registrars to complete C/Section was 1 hour while Senior Registrars and Consultants took average 30 minutes to complete C/Section.

As the most common indication for C/Section was a previous scar (previous one, two and three C/Section), the most common difficulty noted was due to adhesions in the abdominal wall as well in peritoneal cavity (45). Delivering the baby from the uterus was the next common difficulty noted (39), followed by difficulty faced while securing haemostasis (31), (27 cases while closing the uterus and 5 cases while opening the subcutaneous tissues and rectus muscles). Difficulty was encountered in reflecting urinary bladder from the lower uterine segment in 12 cases. It was difficult to suture lateral tears as a result of extension of uterine incision in 3 cases. In 4 cases, pfanensteil incision was asymmetrical due to flabby abdominal wall. 3 doctors got pricks in Hepatitis B & C positive patients.

Table I: Indication for C/Section

Indication	No.	%age
Previous 1. C/Section	29	29
Previous 2. C/Section	30	30
Previous 3. C/Section	10	10
Breech with different Indication (Primibreech, footing breech)	14	14
Uncontrolled PIH.	03	3
APH (P. Previa)	02	2
Twin Pregnancy	02	2
Foetal distress	04	4
Postterm Pregnancy with Scanty Liqour & poor BPP.	01	1
CPD	02	2
IUGR	02	2
Hydrocephalus	01	1

Table II: Difficulties encountered at C/Section

	No.	%age
Difficulty due to adhesions	45	45
Difficulty in extracting the baby from the uterus.	39	39
Difficulty in Securing haemostasis while closing the uterus	27	27
Difficulty in securing haemostasis in subcutaneous tissue and rectus muscle	05	5
Difficulty in reflecting bladder from lower uterine segment	12	12
Suturing the posterior uterine wall with the lower edge of uterine incision	01	01
Difficulty in suturing lateral tears due to extension of uterine incision	03	03
Asymmetrical pfannensteil incision	04	04
Difficulties due to obesity	05	05
Pricks to surgeons in hepatitis B & C positive patient	03	03

Discussion:

Cesarean section can be a life-saving technique for both mother and infant; however, it is a major abdominal operation that poses many risks to mother[1]. Anticipation and handling different problems and complications of C/Section is the most important factor to reduce maternal mortality and morbidity.

Results of our study show that previous scar is the leading indication for C/Section which coincide with results of many studies already done[2].

This study highlights that trainees face major difficulties while they operate on a previously scared uterus due to adhesions. Adhesions are typically worse if previous C/Section has been done in some remote peripheral areas. Main difficulty is faced to reach the lower uterine segment due to intra peritoneal adhesions.

Our study shows that trainees feel difficulties in delivering the baby from the lower uterine segment especially during first year of their training. This difficulty may lead to asphyxia and trauma to the baby. Factors responsible for this difficulty are poor relaxation of abdominal wall due to ineffective anaesthesia, inadequate abdominal and uterine incision, high fetal head, and different malpresentation, impacted fetal head deep in the pelvis in advanced labour [4, 5] and inadequate experience of trainees.

Haemorrhage is the biggest problem which surgeons have to constantly fight during surgery. Anticipation of risk factors for haemorrhage[10] before surgery is important e.g. Hepatitis B & C positive patients, whose clotting profile must be done before C/Section, aneamic patients who tolerate haemorrhage badly, patients at risk of postpartum haemorrhage e.g. twin pregnancy, multiparity, APH and C/Section on labouring mother after prolong use of syntocinon. Trainees feel difficulties while closing the 1st layer of uterus, if the uterus is relaxed and if the uterine incision extends.

Obese patients pose a special problem during C/Section[6,7,8].Trainees feel problems while opening the flabby abdominal wall, in reaching the lower uterine segment, in attaining haemostosis and retraction of abdominal wall. An extra assistant is needed to retract the abdominal wall.

Our study shows that asymmetrical pfanensteil incision is a problem especially in pendulous patients. Decision making regarding type of incision and how to give incision varies from patient to patient[11]. Pfanensteil incision should be given two centimeters above the public symphysis. Linea Nigra should be identified as the midline landmark and incision should be marked symmetrically on both sides of linea Nigra before proceeding to C/Section.

Hepatitis B & C is a over whelming and growing problems Like all doctors, trainees should be advised to

get vaccinated against Hepatitis B if not already done, use double gloves at C/Section, do surgery carefully to avoid pricks and if they get the one unfortunately, they should wash hands immediately with water and squeeze as much blood as possible from prick site followed by interferon injection. A lot of fear and depression was noted in trainees who got the pricks in Hepatitis B & C positive patients during the study.

Conclusion:

Difficulties and problems faced by the trainee's registrars at C/Section are numerous, mostly met while operating on a previously scarred uterus which is the leading indication of C/Section. Such difficulties should be identified so that an audit can be done and a Unit policy formulated to address the concerned problems. By solving such problems, we can definitely improve the skills of trainee registrars at C/Section and hence we can improve maternal and perinatal outcome of C/Section.

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Reference:

1. Smith GCS, White IR, Pell JP Debbie R 2005. A Tool to Estimate the Risk of Repeat Cesarean Section. Dol: 10, 1371/Juournal P med .0020325.
2. Repeat C/Section not always needed, New York Amsterdam News, 00287121, 5/12/2005, Vol. 96, Issue 20.
3. Cynthia, Dominique, Vincent De Brouwere et al, Reliability of data on cesarean section in developing countries, Bulletin of the world health organization 2005; 83; 449-455.
4. Kelly Garrett, Allison Butler and Wagne R Cohen, Cesarean delivery during second stage of labour. Characteristics and diagnostic accuracy. The journal of maternal-fetal and neonatal medicine, January 2005, 17 (1): 49-53.
5. Murphy DJ, Liabling RE, patel R, etal. Cohort Study of operative delivery in the second stage of labour and standard obstetric car. Br Jobstet Gynaecol 2003, 11: 610-615.
6. Jennifer CDempsey, Zelalem Asking, Chun-fang Q14 et al. Maternal pre-pregnancy overweight status and obesity as risk factors' for cesarean delivery. The J of Maternal-fetal and Neonatal Medicine, March 2005, 17(3): 179-185 Weiss IL, Malone FD, Emig D, Etal.
7. Obesity, Obstetrics complications and cesarean delivery rate. A population based screening study. Am J obstet Gynaecol 2004, 190: 1091-1097.
8. Kaiser PS, Rs. Obesity as a risk factor for cesarean in a low risk population. Obstet Gynecol 2001, 97: 39-43.
9. Allen VM, O'Conn ell CM, Baskett TF, Maternal and perinatal morbidity of cesarean delivery at full cervical dilatation compared with cesarean section delivery in the first stage of labour. BJOG. 2005 Jul; 112 (7): 986-90
10. Stones RW, paterson CM, Saunders N. 1993. Risk factor for major obstetric haemorrhage. European J of Obstetrics, Gynaecology and reproductive Biology 48, 15-18.
11. Ayers JWT, Morley GW (1987) Surgical incision for cesarean section. Obstetric and Gynaecology 70, 706-708.