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Indications Of Caesarean Section in Primigravida in Tertiary Care Institute of Central India – A Retrospective Study

KEYWORDS

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ABSTRACT Aim- Study the indications of caesarean section in Primigravida and its impact on maternal and fetal outcome.
Method – it is a retrospective study conducted in Sri Aurobindo Institute of Medical Sciences, Indore, M.P where 80 cases of primigravida who underwent caesarean section were studied from May 2015 to MAY 2016 and indications , maternal and fetal outcomes were recorded.

INTRODUCTION

With the advent of newer modalities like Cardiotocography , Colour Dopplers and newer guidelines on induction of labour the rates of caesarean section are rampantly rising in India , especially in cases of Primigravidas. As the dictum says "Once a Caesarean Section is Always a Caesarean Section ", so a hundred thoughts and a good strong indication is the rule while taking up a primi patient for caesarean section. In USA the rates of Caesarean section has raised to one million a year while 67% of these performed in cases of Primigravidas. The various causes of caesarean sections in primi are – fetal distress (due to Meconium, Severe IUGR with Doppler Changes, Non reactive CTG), non progress of labour (NPOL), Cephalo-Pelvic Disproportion, Malpresentations (Especially Breech), Abruption, cervical dystocia, Post Dated & Caesarean Delivery on Maternal Request. With Caesarean Delivery the maternal and fetal outcome has improved in respect to lesser neonatal mortality , morbidity and NICU stay while maternal mortality though decreased but post operative morbidity has increased in term of post operative pyrexia , Urinary tract infection, wound gaping, spinal headaches. Though these post-operative complications and rates can be decreased with the use of thinner needles for spinal anaesthesia and newer generation antibiotics and better post-operative care but still long term implication of caesarean section need to be studied in term of fertility & maternal and neonatal outcomes in repeat caesarean section.

Material & Methods –

It is a Retrospective Study conducted at Sri Aurobindo institute of medical Sciences and PGI, Indore, M.P, where 80 cases of Primigravidas undergoing caesarean section (fulfilling the inclusion criteria) were studied in respect to

1. Indication of caesarean section
2. Maternal Outcome in respect to ICU stay, Post-operative Complications if any.
3. Neonatal Outcome in respect to APGAR score and NICU stay if any.

Inclusion Criteria –

1. Strictly Primigravidas without any previous abortions.
2. Spontaneous Conception
3. No h/o Chronic Disease
4. Term – more than or equal to 37 weeks during caesarean section.

Exclusion Criteria-

1. Bad Obstetric History
2. Infertility treated
3. Caesarean Delivery on maternal request
4. Hyterotomy
5. Caesarean Section done for pregnancy less than 37 weeks.

Results are calculated in term of percentage and conclusion is drawn.

RESULTS-

80 cases of Primigravidas who underwent caesarean section, fulfilling the inclusion criteria were taken up for the retrospective study . The files were retrieved from Medical Record Department of Sri Aurobindo Institute of Medical Sciences and PGI from May 2015 to May 2016 and studied properly , all the information was entered in Microsoft SPSS Excel Sheet 7.0 and the statistics were calculated. Out of 80 cases 40 patients belonged to the age group of 32 to 35 years (50%) followed by a younger group of 20 to 25 years (38.75%).

Among 80 primi patients 63 patients (78.75%) had cephalic presentation during caesarean section followed by breech presentation in 13 patients (16.25%). While only 4 patients (5%) had transverse lie of the fetus during CS. Maximum caesarean section of 32 patients (40%) was done with the indication of fetal distress where 2 babies were admitted in NICU for Meconium Aspiration and Severe Asphyxia. This was followed by 13 patients (16.25%) undergoing CS for breech presentation at term, while Non progress of labour (7.5%) and Post datism (7.5%) were the indication in 12 patients . Cephalo-pelvic disproportion was seen in 9 patients (11.25%) and were taken up for Elective Cs. Other indications of caesarean section were IUGR (4 patients , 5%) , Oligohydramnios (2 patients , 2.5%) while 3 patients (3.75%) were post dated with decreased fetal movement .

18 cases had maternal morbidity post operatively with febrile illness topping the list (6 patients, 33.33%) followed by spinal headaches, blood transfusions, URTI/LRTI, Paralytic ileus & Wound infection seen in 4,4,2,1and 1 patients respectively. Only 5 babies were admitted in NICU – 3 due to low birth weight as a result of IUGR, while 2 were admitted in NICU for meconium aspiration and severe asphyxia respectively. While there was one neonatal mortality due to hypoxic brain injury resulting as a result of maternal eclampsia & abruption.

TABLE – 1 AGE INCIDENCE OF STUDY POPULATION

AGE	NO. OF PATIENTS	PERCENTAGE
20 to 25 Yrs	31	38.75%
26 to 31 Yrs	8	10%
32 to 35 Yrs	40	50%

TABLE -2 FETAL PRESENTATION AT THE TIME OF CAESAREAN SECTION

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Presentation	No. of Patients	Percentage
Cephalic	63	78.75%
Breech	13	16.25%
Transverse	4	5%

TABLE -3 INDICATION OF CS IN PRIMIGRAVIDA IN THE INSTITUTE

INDICATION OF CS	No. Of Patients	Percentage
Breech presentation	13	16.25%
IUGR with Doppler Changes	4	5%
Cephalo-Pelvic Disproportion	9	11.25%
Non Progress Of Labour	6	7.5%
Post- datism	6	7.5%
Oligohydramnios	2	2.5%
Transverse Lie	4	5%
Fetal Distress	32	40%
Cervical Dystocia	1	1.25%
Decreased-Fetal Movements	3	3.75%

TABLE -4 MATERNAL MORBIDITY POST-OPERATIVELY (Total pt – 18)

Morbidity	No. Of Patients	Percentage
Febrile Morbidity	6	33.33%
Wound Infection	1	5.55%
Spinal Headaches	4	22.22%
Blood Transfusion	4	22.22%
Upper/LowerRespiratory Tract Infection	2	11.11%
Paralytic Ileus	1	5.55%
	18	

TABLE – 5 Neonatal Morbidity / Mortality – Morbidity in 5 babies, Mortality in 1 baby

Low birth weight	3 babies	50%
NICU admission due to Meconium Aspiration and Severe Asphyxia	2 babies	11.11%
Neonatal Mortality due to hypoxic brain injury	1 baby	5.55%

DISCUSSION-

Caesarean Section is one of the commonest surgery in obstetrics, practiced to improve maternal and fetal outcome during delivery but it also has associated complications. Therefore the advantages and disadvantages should always be weighed before undertaking Caesarean Section especially in Primigravidas.

The caesarean section rates in our study was highest in patients of age more than 32 years (50%) and patients younger than 25 years (38.75%) which was consistent with the study done by Salah Roshdy Ahmed in Saudi Arabia[1] in which 22.9% of the study subjects were younger than 20 years and 38% were of 30 years and more. This wide diversity of age might have been due to disproportion of pelvis seen in younger patients leading to dysfunctional labour while elder age group was associated with pregnancy related complications like gestational diabetes , pre-eclampsia.

The presentation at the time of caesarean section was mostly cephalic in 63 patients (78.75%) means these sections were due to fetal distress (32 patients, 40%) during labour heading the indications list followed by elective caesarean section for breech presentation in 13 patients (16.25%), Cephalo-pelvic disproportion in 9 patients (11.25%) , severe oligohydramnios in 2 patients and 4 patients were taken for elective caesarean section for transverse lie .The findings were similar to the study done by Dresang [2]. The result was consistent with the findings of previously published data where the primary indication for CS was fetal distress during labour.[3] The fetal distress during labour was diagnosed with the help of CTG . However several studies have already stated that CTG findings are subjective to the observers. The CTG findings have low specificity regarding fetal acidosis as a resultant of distress.[4] The threat of medico-leagal implications related to maternal and fetal morbidity and mortality is high leading to a lower threshold for performing Caesarean section. The patients are also digitalised sound enough and are easily motivated for CS.

The post-operative morbidity in primi patients were seen in 18 patients, 6 patients had febrile illness where the patients were either having PROM or UTI before the Caesarean Section. The fever was taken care with the use of higher antibiotics. While 4 patients had consistent spinal headache which were relieved by increasing the fluid intake and analgesics. None of the patients had surgical complications. NICU admissions was seen in 5 babies where 3 of the babies were admitted for low birth weight while 2 of the babies had severe asphyxia due to meconium aspiration There was one neonatal mortality due to maternal eclampsia and Abruption, this could have been prevented by reducing the time in which the patient was recognised as high risk and the baby out time during CS.

Thus in our study age was an important factor for increasing Caesarean section rates in Primigravidas. The result was similar to the study done by Seshadri and Mukherjee who published that in low risk pregnancies, age is the most predictive factor of CS. Thus the maternal age of more than 25 years is protective for CS. While elderly primis landed in CS, mostly due to pregnancy related complications. The rate of CS in Primigravidas could be decreased probably by defining guidelines for CTG interpretation thus decreasing the no. of patients undergoing CS for fetal distress & re-introduction of External Cephalic Version in tertiary care to correct transverse or breech presentation and training of the Obstetricians regarding ECV.

CONCLUSION-

The study showed that age is the important predictive factor for caesarean section in Primigravidas with younger age less than 25 year or patients with age more than 32 years. The most common indication of CS in our study was fetal distress during labour which can be reduced by more firm guidelines regarding CTG interpretations while elective CS for Breech and Transverse lie can be reduced by reintroduction of External Cephalic Version.

REFERENCES-

1. Ahmed SR, Alsheesha MA, Alsammani MA. Risks and indications for caesarean sections in primiparous women : A case-control study.Ann Trop Med Public Health 2013;6:541-4
2. Dresang LT, Leeman L. Cesarean delivery. Prim Care 2012;39:145-65.
3. Say L1, Souza JP, Pattinson RC; WHO working group on Maternal Mortality and Morbidity classifications. Maternal near miss - towards a standard tool for monitoring quality of maternal health care. Est Pract Res Clin Obstet Gynaecol 2009;23:287-96.
4. MacDorman MF, Menacker F, Declercq E. Cesarean birth in the United States: Epidemiology, trends, and outcomes. Clin Perinatol 2008;35:293-307, v.
5. Menacker F, Declercq E, Macdorman MF. Cesarean delivery: Background, trends, and epidemiology. Semin Perinatol 2006;30:235-41.
6. Meehan FP, Burke G, Kehoe JT. Update on delivery following prior cesarean section: A 15-year review 1972-1987. Int J Gynaecol Obstet 1989;30:205-12.
7. Ba'aqeel HS. Cesarean delivery rates in Saudi Arabia: A ten-year review. Ann Saudi Med 2009;29:179-83. [PUBMED]
8. Al-Mubarak KA, Adamchak DJ. Fertility attitudes and behavior of Saudi Arabian students enrolled in U.S. universities. Soc Biol 1994;41:267-73.
9. Witter FR, Repke JT, Niebyl JR. The effect of maternal age on primary cesarean section rate. Int J Gynaecol Obstet 1988;27:51-5.
10. Sobande AA, Archibong EI, Eskandar M. Primary caesarean section in nulliparous and grandmultiparous Saudi women from the Abha region: Indications and outcomes. West Afr J Med 2003;22:232-5.
11. VCosta A, Policiano C, Clode N, Graça LM. Indications for cesarean deliveries during a 7-year period in a tertiary hospital. Acta Med Port 2013;26:649-54.
12. Schiermeier S, Pildner von Steinburg S, Thieme A, Reinhard J, Daumer M, Scholz M, et al. Sensitivity and specificity of intrapartum computerised FIGO criteria for cardiotocography and fetal scalp pH during labour: Multicentre, observational study. BJOG 2008; 115:1557-63.
13. Lee SM, Lee KA, Lee J, Park CW, Yoon BH. "Early rupture of membranes" after the spontaneous onset of labor as a risk factor for cesarean delivery. Eur J Obstet Gynecol Reprod Biol 2010;148:152-7.
14. Berle P, Weiss E, Probst D. Maternal morbidity after abdominal cesarean section in relation to bacterial amniotic fluid colonization and premature rupture of fetal membranes. Geburtshilfe Frauenheilkd 1991;51:722-8.
15. Malabarey OT, Balayla J, Abenhaim HA. The effect of pelvic size on cesarean delivery rates: Using adolescent maternal age as an unbiased proxy for pelvic size. J Pediatr Adolesc Gynecol 2012;25:190-4.
16. Seshadri L1, Mukherjee B. A predictive model for cesarean section in low risk pregnancies. Int J Gynaecol Obstet 2005;89:94-8. [PUBMED]