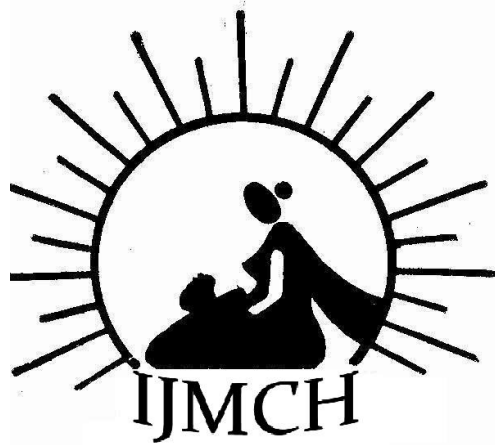


Indications for caesarian section in teenage pregnancy: A cross sectional study from Latur, Maharashtra.

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What are the indications of LSCS in teenage pregnancy?

Indications for caesarian section in teenage pregnancy: A cross sectional study from Latur, Maharashtra.

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ABSTRACT

Research question: What are the indications of LSCS in teenage pregnancy?

Study setting: Government Medical College, Latur.

Study design: Record based, cross sectional study.

Participants: Mothers having age \leq 20 years.

Methodology: This is a record based study conducted from 1st Oct 2013 to 30th Nov 2013 which included 512 cesarean sections out of which 112 were teenage mothers. Maternal characteristics and indications for LSCS were recorded from the medical records of them.

Results: The incidence of cesarean sections during the study period was 38.44%. Out of the 112 teenage mothers delivered by LSCS, 58.93% were primigravida. Most of the patients (68.75%), had not registered their ANC in any health institute. Majority (90.18%) were primary LSCS and 91.07% were emergency LSCS. The leading causes of LSCS were failure to progress of labor and fetal distress. The reason for repeat LSCS in all the mothers was previous LSCS.

Key words: *teenage pregnancy, LSCS, Indications*

INTRODUCTION

According to World Health Organization, the period of adolescence extends from 11-19 years. Pregnancy during this period is called teenage pregnancy.^{1, 2} Incidence of teenage pregnancy by various studies showed to be ranging from 8.3-23.4%.¹⁻⁵

Pregnancy in this transitional age is a serious public health problem and social phenomenon with significant medical outcomes. The adverse obstetric and neonatal outcomes are often influenced by biological immaturity, unintended pregnancy, inadequate perinatal care, poor maternal nutrition, and stress.⁶⁻⁸

Regarding the mode of delivery in teenage pregnancy, incidence of lower segment cesarean section (LSCS) varies in different studies.¹⁻⁴

Considering limited number of studies regarding the indications of LSCS in teenage pregnancy in India, we aimed to review these indications along with some socio-obstetric factors in them.

Aim and objectives:

Aim of the study was to review the indications of LSCS in teenage pregnancy along with some socio-obstetric factors in them.

METHODOLOGY: This is a retrospective record based study conducted in Government Medical College, Latur. There were 1332 deliveries during the study period from 1st Oct 2013 to 30th Nov 2013 which included 512 cesarean sections out of which 112 were delivered at ≤ 20 years age; thus constituting pregnancies during teenage. Maternal characteristics such as age, place of residence, religion and indications for LSCS were recorded from the medical records of them. The registration status of the pregnancy was noted. Based on the urgency to perform surgery, LSCS was classified as elective or emergency LSCS. LSCS was labeled as primary CS when it was performed on unscarred uterus; while CS performed on women with one or more previous cesarean delivery was labeled as repeat CS.

Data was summarized with percentage and proportions. Ethical clearance was obtained.

RESULTS

There were 1332 deliveries during the study period which included 512 cesarean sections. The incidence of cesarean sections during the study period was 38.44%. Among these, 112 were teenage pregnancies that resulted in LSCS.

Table 1: Socio-obstetric features of teenage mothers delivered by LSCS

	Number	Percentage
Residence		
Urban	41	36.61
Rural	71	63.39
Religion		
Hindu	66	58.93
Buddhist	31	27.68
Muslim	15	13.39
Gravida		
Gravida 1	66	58.93
Gravida 2	46	41.07
Registration status		
Registered	35	31.25
Unregistered	77	68.75
Type of LSCS		
Primary caesarian section	101	90.18
Repeat caesarian section	11	09.82
Timing for LSCS		
Elective caesarian section	10	08.93
Emergency caesarian section	102	91.07

Table 1 shows the sociodemographic and obstetric characteristics of the study subjects. Majority of the patients (63.39%) were from rural area. Nearly 60% patients were Hindu by religion followed by Buddhist (27.68%).

Out of the 112 teenage mothers delivered by LSCS, 58.93% were primigravida and 41.07% were of gravidity 2. Most of the patients (68.75%), had not registered their ANC in any health institute. Majority(90.18%) were primary LSCS and 91.07% were emergency LSCS.

Figure1: Indications for primary LSCS in teenage mothers

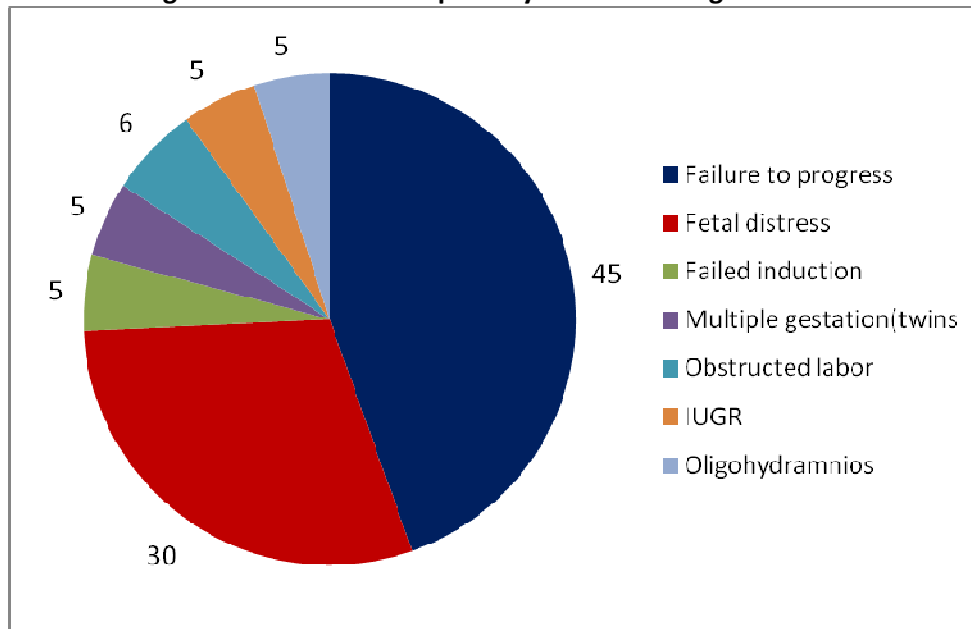


Figure 1 shows the indication for primary LSCS in teenage mothers. The leading causes were failure to progress of labor and fetal distress. The reason for repeat LSCS in all the mothers was previous LSCS.

DISCUSSION

The LSCS rates have been increasing over last decade; however, the major indications for LSCS have not changed. These are commonly foetal distress, prolonged labour, breech presentation, multiple gestations, previous LSCS and LSCS on demand. The rise in LSCS rates may indicate a trend towards a lowered threshold of abnormality detection among the health care providers and more costly medical delivery systems.⁹

The change in lifestyle has increased the incidence of pregnant women with medical disorders such as obesity and big babies, Gestational Diabetes Mellitus, PIH, eclampsia, Improved fetal surveillance and NICU facilities have expanded the fetal indications for cesarean deliveries.¹⁰

The Caesarean Section rate in our hospital in the study period was 38.44%. This is higher than the rates in tertiary hospitals in Raipur, India (26.2%)¹¹ and other South-East Asian countries like The Philippines (22.7%), Malaysia (19.1%) and Indonesia (29.6%)¹²

Studies show that the cesarean section rate in United States is 25%¹³, England 20%¹³, South Africa 57%¹⁴, Brazil 85%¹⁵, Tehran 42.3%¹⁶ and Nepal 33.7%¹⁷. A study by the ICMR in 33 tertiary care institutions noted that the cesarean section rate has increased from 21.8% in 1993-1994 to 25.4% in 1998-1999¹⁸. According to the WHO recommendations, the optimal cesarean delivery rate is 10-15 %¹⁹. The CS rate in our hospital is higher than the WHO recommendations.

The high CS rate in this hospital may be partially attributed to the fact that this being a referral hospital gets a larger proportion of complicated pregnancies and most cases were unregistered/referred.

The leading indications for LSCS in present study were failure to progress of labor and fetal distress. The common indications for caesarean section in other studies were Cephalopelvic disproportion and fetal distress.^{20, 21} In the literature related to the surgical indications for cesarean delivery, cephalo-pelvic disproportion, presentation abnormalities, breech delivery and pregnancy-induced hypertension were declared as causes for adolescent pregnancies.²²⁻²⁶

As the study was conducted among ≤ 20 years mothers who are anatomically less developed for bearing pregnancy. Hence, failure to progress of labor which is mainly due Cephalopelvic disproportion is the leading cause for LSCS in this tender age.

The primary limitation of the study was that, it may not truly reflect the prevailing situation in a community as it was a hospital-based study. The data is collected from medical records. So, the age of the mothers was directly recorded from case papers. It may have missed some of the teenage pregnancies.

CONCLUSIONS: The incidence of cesarean sections during the study period was 38.44%. The leading causes of LSCS in teenage mothers were failure to progress of labor and fetal distress.

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