

Frequency of Repeat Caesarean Section at Tertiary Care Hospital

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ABSTRACT

Objective: To determine the frequency of repeat caesarean sections among women presenting at the tertiary care Hospital.

Subjects and Methods: This cross-sectional study was done at the Department of Obstetrics and Gynecology, Shaikh Zaid Women Hospital, SMBBMU Larkana. A total of 345 women older than 18 years with a history of at least one previous caesarean section regardless of gestational age or parity were included. After taking a clinical examination and history, the patients were evaluated according to the frequency of repeated caesarean sections. The data was controlled on a pre-designed proforma, and SPSS version 26 was used for the data analysis.

Results: The average age of the patients was 25.83±4.15 years, average gestational age was 35.18+3.38 weeks; and the average parity was 2.09+0.35. Out of 345 cases, 28.7% were urban and 71.3% were rural resident. Most of the cases were booked. Out of all women, 57.1% were obese, and 51.59% had diabetes. The frequency of repeated caesarean sections was observed in 66.96% (231 out of 345) of the women. The frequency of the repeated caesarean sections with respect to maternal age and obesity was statistically significant ($p < 0.05$), while it was statistically insignificant according to gestational age, residency, booking status, and diabetes ($p > 0.05$).

Conclusion: In conclusion, the frequency of repeated caesarean sections was observed to be highly prevalent. Effective implementation of caesarean section reduction efforts may be influenced by the social and cultural context, as well as associated beliefs and behaviours.

Keywords: Recurrent, Caesarean section, frequency

INTRODUCTION

A caesarean section seems to be a surgical delivery in which the mother's abdomen and uterus are incised.¹ Concern over the raised risk of the rupture of uterus among females trying to give birth vaginally following a caesarean delivery has contributed to the recent raises in repeat caesarean sections. Eighty to ninety six percent of the females who had a caesarean section for their first child also had a caesarean section for their next child.¹ It is a caesarean delivery is a medical procedure that could save both the mother's and the unborn child's lives. Moreover, the surgical deliveries carry some dangers and consequences for the mother and fetus.² The increase in caesarean delivery frequencies in industrialized nations over the past ten years and patient-demanded caesareans have garnered a lot of attention.^{3,4} Around the world, caesarean deliveries represent around 18% among all births. Globally, the percentage of vaginal births following a previous caesarean delivery has dropped from 40% in 1996 to fewer around 10% currently.^{2,5,6} The concept that "once a caesarean section, always a caesarean section" was widely accepted in the practice of obstetrics field in the 20th century and somehow still suffuses the daily routine of a substantial variety of healthcare providers and services is one reason why there are more repeat caesarean sections as the number of caesarean sections rises.^{7,8} Nevertheless, most women oppose sterilization in nations where having large offspring is valued for both cultural and social considerations.⁹ As a result, having had a previous C-section has become a more prevalent sign that a subsequent pregnancy may result in a caesarean delivery.⁹ Females who had two or more prior caesarean sections, women who had recently had a caesarean section, and those who had an induced delivery had a greater risk of rupture of the uterus. Even with vaginal deliveries following previous caesarean sections, the rupture is uncommon, even though it is related to the morbidity and the mortality.^{7,10} According to the most recent PDHS data, the percentage of deliveries performed via caesarean sections has raised significantly from 14% till 2012 to 2013 to 22% till 2017 to 2018.¹¹ However, this study has been done to explore the current rate of the repeated caesarean sections among women presenting at the Tertiary Care Hospital.

MATERIAL AND METHODS

This cross-sectional study was conducted at the department of Gynaecology and obstetrics at Shaikh Zaid Women Hospital, SMBBMU Larkana. The study duration was six months, from September 2017 to February 2018. Non probability consecutive sampling was used. All the women aged 18–45 years with parity 2–4, gestational age > 28 weeks, singleton pregnancy on ultrasound, and females having a history of previous one C-section were included. Primary gravida, gestational age <28weeks, multiple Fetal pregnancies, and pregnancy women who had history of >1 caesarean sections previously were excluded. From the patients, the researcher obtained their informed consent, and the patients were selected from the outpatient department (OPD) and obstetric wards at SZWH Larkana. The frequency of repeated caesarean sections was evaluated. Ultrasound was performed by the sonologist, having minimum of 5 years of clinical experience, while the researcher was responsible for the entire economic burden of the study. The data was controlled on a pre-designed proforma, and the statistical packages for social science (SPSS) version 26 were used to enter and analyze the data.

RESULTS

A total of 345 women with a history of previous one caesarean section, were studied. The average age of the patients was 25.83±4.15 years, and the mean gestational age was 35.18+3.38 weeks. Out of 345 cases, 99(28.7%) were urban and 246(71.3%) rural. Most of the cases were booked. There were 197(57.1%) women; 197(57.10%) were obese, diabetes mellitus was found in 178(51.59%) women. Table.1

The frequency of repeated caesarean sections was observed in 66.96% (231 out of 345) of the women. Fig:1

A stratification analysis was performed, and it was observed that the rate of repeated caesarean sections was significantly higher in obese cases as compared to non-obese cases ($p < 0.05$), while the rate of repeated caesarean sections was not statistically significant with respect to age groups, gestational age, residence, diabetic mellitus, and antenatal visits ($p > 0.05$). Table.2

Table 1: Descriptive statistics of demographic characteristics n=345

Demographic variables	Statistics
Mean age	25.83±4.15 years
Mean gestational age	35.18+3.38 weeks
Residential status	
Urban	99(28.7%)
Rural	246(71.3%)
Booking status	
Booked	276(80.0%)
Un-booked	69(20.0%)
Obesity	
Yes	197(57.10%)
No	148(42.90%)
Diabetes	
Yes	178(51.59%)
No	167(48.41%)

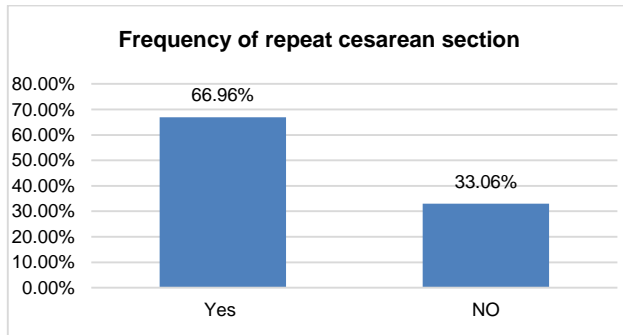


Fig. 1: Frequency of repeat cesarean section n=100

Table 2: Repeated caesarean section with respect to stratified variables n=345

Stratified Variables		Repeated Caesarean Section		P-Value
		No n=114	Yes n=231	
Age Groups (years)	≤30	104(91.2%)	194(82.3%)	0.027
	>30	10(8.8%)	41(17.7%)	
Gestational age (weeks)	≤36	64(56.1%)	146(63.2%)	0.241
	>36	50(43.9%)	85(36.8%)	
Residence	Urban	34(29.8%)	65(28.1%)	0.745
	Rural	80(70.2%)	166(71.9%)	
Obesity	Yes	54(47.4%)	143(61.9%)	0.010
	No	60(52.6%)	88(38.1%)	
Diabetes	Yes	61(53.5%)	117(50.6%)	0.617
	No	53(46.5%)	114(49.4%)	
Booking status	Booked	19(16.7%)	50(21.6%)	0.277
	Un-booked	95(83.3%)	181(78.4%)	

DISCUSSION

Conversely, the prevalence of caesarean sections is constantly increasing, and repeat caesarean sections account for the majority of the total CD rates.¹² In the past 20 years, the rate of caesarean births has risen atypically in a number of countries, including Pakistan. In this study, a total of 345 pregnant women aged 18–45 years were included, and the average age of the women was 25.83±4.15 years. The majority of our patients were in the age group of 21–25 years, showing that the trend of early marriages is decreasing. Consistently, Gholami A et al³ reported that the mean age of women was 29.95 ± 4.94 years. On the other hand, Sharma J et al¹ also reported that the patients who had previous caesarean deliveries ranged in age from 19 to 38 years, with an average age of 29.46 years.

In our study, the frequency of repeat caesarean sections in patients with a previous caesarean section was observed in 66.96% (231 out of 345) women. In a local study of 6 months' duration, reported the caesarean section rate (CSR) of 44%.¹³ Mascarello KC et al.⁷, on the other hand, reported that repeat caesarean sections were performed in 87.44% of females who had a history of one previous caesarean section, and in 18.15% of c-sections among women who had their first child delivered

vaginally. Another study reported that there was a lower C-section rate (15.4%) in nulliparous women in the public healthcare system, but rates among multiparous women who had a previous caesarean section were much higher (73.2%) in the private hospital system.¹⁴ Sharma J et al¹ found a higher rate of repeat C-sections (95.19%) in their study.

In this study, stratification analysis was performed, and it was observed that the rate of repeated caesarean sections was significantly higher in overweight subjects as compared to normal weight cases, and as per our findings, the rate of repeated caesarean sections with respect to maternal age and obesity was statistically significant (p<0.05), while it was statistically insignificant according to gestational age, residency, booking status, and diabetes (p>0.05). Consistently, T.S. Usha Kiran et al¹⁵ reported that, there seems to be an increased chance of caesarean section in females with a BMI over 30 kg/m². In the same line of this study, some previous studies also found comparable findings.^{16,17} While there is no obvious explanation for this, it might be believed that gynecologists requested frequent antenatal clinic visits from women who had pregnancy issues including diabetes, hypertension, and obesity in order to manage any unfavourable obstetric hazards.¹⁸ Although the Punjab's region's women consistently display a higher predisposition for caesarean deliveries whenever considered the regional characteristics. One of the reasons for the rise in deliveries by c-sections in the province can be attributed to easily accessible and the accessibility of medical facilities at both public and private health facilities.¹⁸⁻²⁰ There seem to be two alternatives for a woman whose prior pregnancy ended in a caesarean section: planned elective repeated C-section or scheduled vaginal delivery. Although both have risks and advantages, existing sources of knowledge are only non-randomized cohort publications.²¹ Females over the age of 35 had the highest incidence of Caesareans.¹⁷ For women who have never had a previous caesarean section, repeat caesarean deliveries are much more likely to result in maternal and neonatal morbidity and mortality than caesarean or vaginal deliveries.^{22,23} Regardless of the common practice of recurrent caesarean deliveries, obstetric standards advise that women who have had prior caesarean deliveries and have a lower transverse scar are suitable for vaginal delivery and that they should be kept informed regarding this.⁷

CONCLUSION

As per the study conclusion, the frequency of repeated caesarean sections was observed to be highly prevalent. Effective implementation of caesarean section reduction efforts may be influenced by the social and cultural context, as well as associated beliefs and behaviors. Additionally, it is recommended that Pakistan's health system should give accurate medical instructions on how and when to perform caesarean sections. Strict attention to those medical recommendations will aid in lowering the number of caesarean sections performed in Pakistani health facilities.

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