

FREQUENCY OF REPEAT CAESAREAN SECTION AND ITS ASSOCIATED
COMPLICATIONS IN A TERTIARY CARE HOSPITAL IN PAKISTANMahum Shahab Memon*¹ and Khadijat-ul-kubra Yousfani²^{1,2}MBBS Student, Isra university, Hyderabad.

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ABSTRACT

Objective: To observe the frequency of caesarean section and its associated complications. **Study Design:** Observational study. **Place and Duration:** Gynecology unit, ISRA university, Hyderabad from 20-2-2018 to 21-4-2018. **Materials and Methods:** 217 deliveries were observed with an exclusion of women having normal vaginal delivery and including a total of 60 caesarean section cases. Data was collected through preformed designed proformas by dividing the patients into 3 groups A, B and C on the basis of number of caesarean sections where Group A represents patients with less than 2 Caesarean sections, Group B represents patients with 2 caesarean sections and Group C represents patients with more than 2 caesarean sections. Statistical software SPSS version 21 was used to analyze the data variables. **Results:** Results were assessed on the basis of indications for first caesarean section, morbidities associated with caesarean section, decision taken for caesarean section. Breech presentation was seen to be the most common indication (21 patients, 42%) for first caesarean section. Various complications associated with caesarean section like post partum hemorrhage (p value= 0.36), Anemia was seen to be the most common complication (43%) associated with caesarean section (p value =0.36), urinary tract infections (p value= 0.5) and wound infections (p value= 0.15), the highest p value observed in patients with more than 2 caesarean sections (Group C). In 54 cases (87%) the decision was taken by the doctor due to various complications during pregnancy. **Conclusion:** Frequency of caesarean section is increased if this is opted as a mode of delivery and avoid undue first caesarean section to reduce the frequency of caesarean section.

KEYWORDS: Caesarean section, complications.

INTRODUCTION

Caesarean section (CS) is a life-saving surgical procedure when certain complications arise during pregnancy and labor. However, it is a major surgery and is associated with immediate maternal and perinatal risks and may have implications for future pregnancies as well as long-term effects that are still being investigated.^[1,2] The use of CS has increased dramatically worldwide in the last decades particularly in middle- and high-income countries, despite the lack of evidence supporting substantial maternal and perinatal benefits. The World Health Organization (WHO) has identified an ideal caesarean section (CS) rate for a nation of around 10-15%.^[3] In many countries these rates have reached epidemic proportions motivating a debate that whether high rates are appropriate or not leading to an increased association of complications to this operative procedure.^[4] Figure 1 shows the latest available data on caesarean section rates by country.^[5] The reasons for this increase are multifactorial and not well-understood. The leading fetal indications for caesarean delivery include

situations in which neonatal complications and mortality could be decreased.^[6] It was predicted that if age-specific caesarean rates continued at the steady pattern of increase observed since 1970, 40% births would be by caesarean section in the year 2000.^[7] Complications associated with caesarean section include risk of spontaneous abortions, ectopic pregnancies, intra-operative adhesions, injury to surrounding organs, placenta previa and accrete, caesarean hysterectomy and post-operative complications of blood transfusions, infections, pneumonia, deep vein thrombosis.^[8] Caesarean section has several inherent complications but maternal and fetal well-being, timing of the birth, the surgeon's experience, the competence of the center and risks of anesthesia are important factors that lead to the emergence of complications.^[9] Caesarean section has become much safer over the years but it cannot replace vaginal deliveries in terms of low maternal and neonatal complications and less cost.

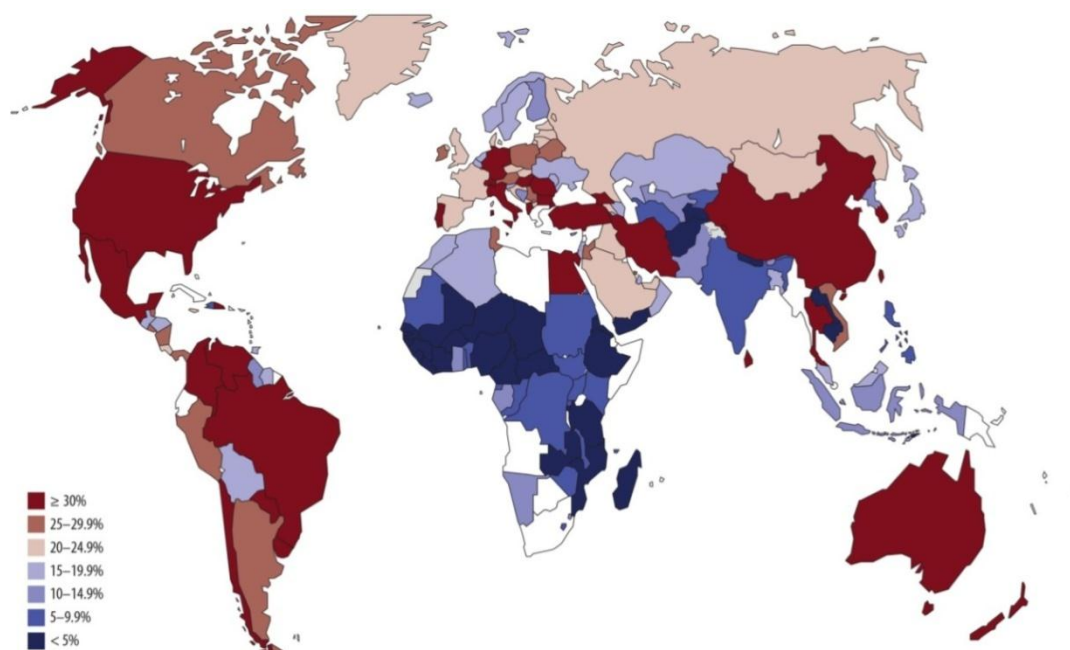


Figure 1: Showing the latest available data on caesarean section rates by country.

METHODOLOGY

The study was conducted at the Gynae ward, Unit 2 of Isra University Hospital. The study duration was 2 months, from 20th February 2018 to 21st April 2018. It was an observational study that included 60 cases of caesarean deliveries. A proforma was constructed to document the details of all caesarean sections during the study period. A pre-structured proforma was completed for each patient with their consent regarding relevant information of any previous caesarean section, indication for caesarean section and complications associated with caesarean deliveries. During the 2 months study period, of a total of 217 deliveries conducted in the unit, 60 women had CS. These caesarean deliveries were analyzed for the present study with the exclusion of

patients with normal vaginal delivery. Total 60 caesarean section cases taken in the study were divided into three groups A, B and C on the number of caesarean sections. The caesarean rate was calculated as: $(\text{total number of caesarean deliveries} / \text{total number of deliveries}) \times 100$. The results were analyzed on SPSS version 21.

RESULTS

1. CESSARIAN RATE

The caesarean rate was calculated as: $(\text{total number of caesarean deliveries} / \text{total number of deliveries}) \times 100$. The total deliveries recorded during the study period was 217 whereas the total caesarean sections were 60. The caesarean rate was calculated was found to be 27.64 % $(60 / 217 \times 100)$.

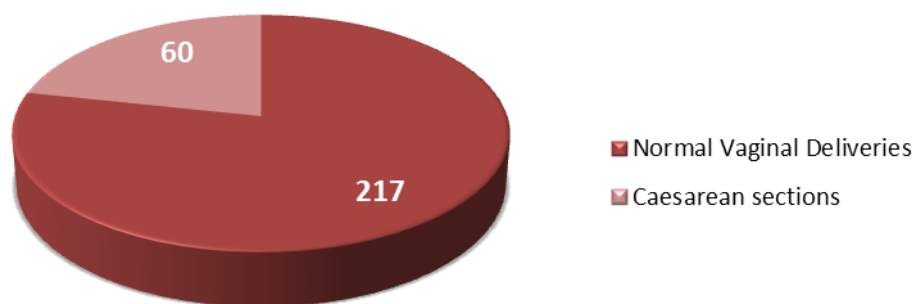


Figure no. 2: showing caesarean rate.

2. INDICATION FOR 1ST CAESAREAN SECTION:

Table 1: showing frequency of indications for first caesarean section.

INDICATIONS	FREQUENCY
Narrow pelvis	12
Twin pregnancy	02
Fetal distress	08
Pre-eclampsia	04
Breech presentation	21
Transverse lie	05
Placenta previa	02
Failure to progress to labor	06

Indication for 1st Caesarean Section

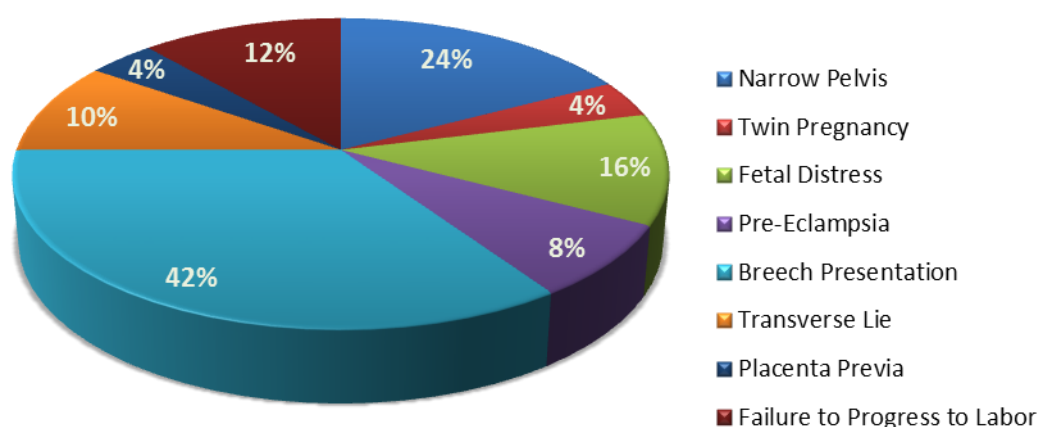


Figure no. 3: showing the percentage of indications for first caesarean section.

3. FREQUENCY OF COMPLICATIONS:

Table 2: showing distribution of postpartum hemorrhage in study groups.

COMPLICATIONS	Groups	Present	Absent	Chi square value	P – value
POSTPARTUM HEMMORHAGE	GROUP: A	2	18	3.53	0.06
	GROUP: B	5	15		
	GROUP: A	2	18	6.67	0.01
	GROUP: C	9	11		
	GROUP: B	5	15	0.83	0.36
	GROUP: C	9	11		

Postpartum Hemorrhage was found to be present in 26% of the total patients who underwent a Caesarean section. However, the greatest number was observed in patients who had more than 2 CS (Group C) as compared with those who had 2 (Group B) or less than 2 procedures (Group A).

Table 3: showing distribution of Anemia in study groups

COMPLICATIONS	Groups	Present	Absent	Chi square value	P – value
ANEMIA	GROUP: A	4	16	8.28	0.01
	GROUP: B	9	11		
	GROUP: A	4	16	4.34	0.001
	GROUP: C	13	7		
	GROUP: B	9	11	10.59	0.05
	GROUP: C	13	7		

Anemia is one of the most common complications of Caesarean section and was found to be present in 43% of the total patients who underwent a Caesarean section. However, the greatest number was observed in patients

who had more than 2 CS (Group C) as compared with those who had 2 (Group B) or less than 2 procedures (Group A).

Table 4: showing distribution of Urinary tract infections in study groups.

CO-Morbidity	Groups	Present	Absent	Chi square value	P – value
URINARY TRACT INFECTION	GROUP: A	1	19	3.13	0.20
	GROUP: B	3	17		
	GROUP: A	1	19	3.08	0.05
	GROUP: C	5	15		
	GROUP: B	3	17	0.83	0.36
	GROUP: C	5	15		

Urinary tract infection secondary to catheterization was a common post surgical complication observed in 15% of the total patients who underwent a Caesarean section. However, the greatest number was observed in patients

who had more than 2 CS (Group C) as compared with those who had 2 (Group B) or less than 2 procedures (Group A).

Table 5: showing distribution of Wound infections in study groups.

CO-Morbidity	Groups	Present	Absent	Chi square value	P - value
WOUND INFECTIONS	GROUP: A	0	20	6.14	0.04
	GROUP: B	2	18		
	GROUP: A	0	20	5.96	0.02
	GROUP: C	5	15		
	GROUP: B	2	18	1.24	0.15
	GROUP: C	5	15		

Surgical wound infection is a troublesome complication which can lead to sepsis and was found to be present in 11.6% of the total patients who underwent a Caesarean section. However, the greatest number was observed in

patients who had more than 2 CS (Group C) as compared with those who had 2 (Group B) or less than 2 procedures (Group A).

4. Decision of caesarean section made by:

Doctor	52
Family	05
Herself	03

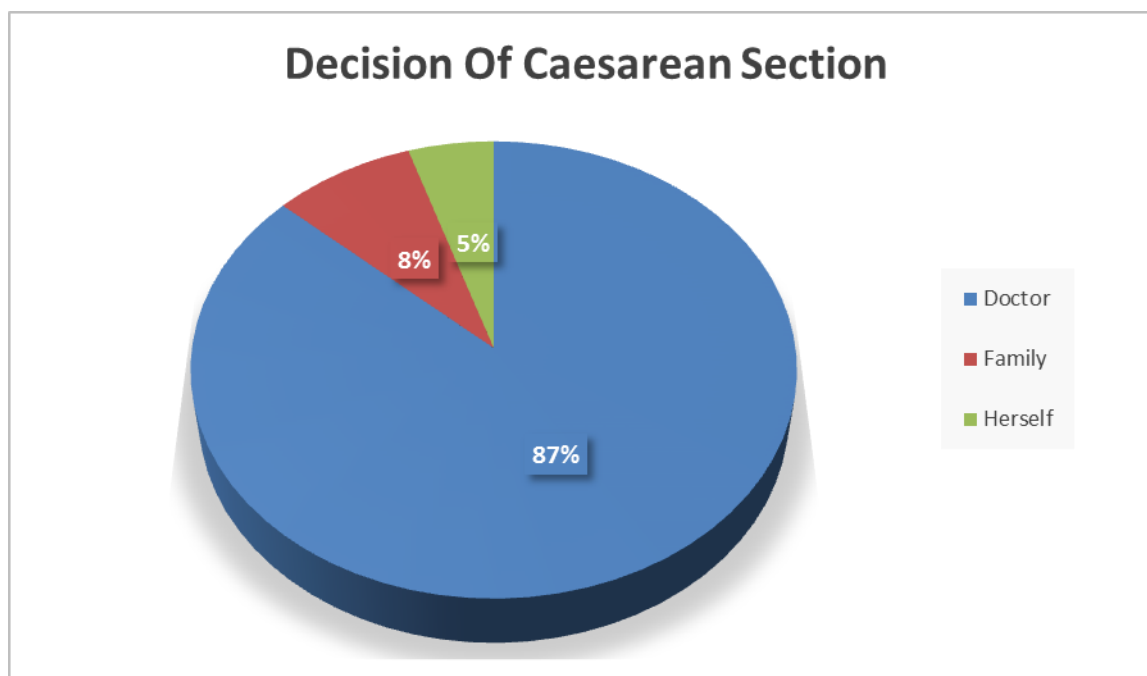


Figure no. 4: showing the percentage of decision of caesarean section.

DISCUSSION

A study conducted in America shows 119 patients have first caesarean section. 36 patients have second caesarean section and 12 patients have more than 2 caesarean deliveries. In comparison to our study where 18 females were reported to have first caesarean section, 15 were found to have second caesarean section and 27 patients had more than 2 caesarean sections. Patients with repeat caesarean deliveries having an indication of previous caesarean sections were 32 in comparison to a study conducted in Bhawalpur that shows 16.36%.^[10] When indication for repeat caesarean section was reviewed from literature it was seen that abnormal presentation in 15.2% cases, Fetal distress was reported in about 19.5% and 27.5% cases with normal pelvis in comparison to this study 42% cases were reported to have abnormal presentation, 16% cases were reported as an indication for fetal distress and 24% with narrow pelvis.^[11] In this study postpartum hemorrhage is seen in about 14 patients while anemia being the most common seen in about 30 females, nine cases having urinary tract infections and seven having wound infections. In comparison to a study conducted in Brazil that reported 22 cases of anemia and ten patients having postpartum hemorrhage, 15 patients were seen to have urinary tract infection and 10 cases of wound infections were reported.^[12] In reviewing literature, it was found that 3-14 patients took decision of caesarean section themselves or by family. Nearly similar results are observed in our study where 3 patients took decision themselves and 5 by family.^[13]

CONCLUSION

Repeated caesarean section is the primary indication for caesarean delivery to be chosen as a mode of delivery for the next deliveries that leads to unwanted complications. Therefore, avoidance of undue first caesarean section

reduces the frequency of caesarean deliveries and complications associated with it.

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