

# Caesarean section - 5 years analysis

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**Summary :** There were 16782 deliveries in 5 years from 1992-96. The number of caesarean sections were 2650 and the caesarean rate was 16%. Because of the associated risk factors and late referrals, emergency section rate was high (83.25%). Repeat section rate was 37.25% due to inadequate information about the previous surgery and the integrity of the Scar. Intra-operative complications in emergency sections was 15.2% and post-operative morbidity was 7.7%. The morbidity was less in elective sections (2.6%). The maternal and fetal mortality was 0.5% and 5.5% respectively. Incidence of vaginal delivery after one previous Caesarean Section was 69%.

## Introduction

The upsurge of Caesarean section is being commented around the world. The caesarean delivery has become popular considering the safety of mother and child. Though the operation is thought to be safe and simple, the obstetrician is faced with many challenges particularly in high risk cases.

## Material and Methods

2650 women who underwent caesarean section over a period of 5 years from 1992-96, at Government General Hospital, Guntur were critically analysed regarding the incidence, age, gravidity, timing and type of section, indications and complications. An attempt was made to identify the steps to decrease the caesarean section rate. The perinatal morbidity and mortality were noted.

## Observation and Discussion

**Table - I**  
**Incidence of Caesarean Section**

	No. of deliveries	No. of C.S.	%
1970			4.09
1980			7.60
1987-91	17,124	2135	12.37
1992	3199	424	13.3
1993	3631	526	14.5
1994	3,379	569	16.8
1995	3,294	560	17.0
1996	3,279	564	17.2

**Table II**  
**Timing and type of section**

		No	%
I	Primary	1663	62.75%
	1 Emergency	1520	91.4
	2 Elective	143	8.6
II	Repeat	987	37.25
	1 Emergency	685	69.4
	2 elective	302	30.6
III	Total	2650	100.00
	1 Emergency	2205	83.25
	2 Elective	445	16.75
IV	Classical Sections	8	0.3
V	Previous 2 sections	113	11.4%

The table I shows that there is a 4 fold increase in sections in recent years when compared to 1970, but the rise is found to be gradual and in 1996 the caesarean section rate was 17.2%.

19.4% of cases were less than 20 years of age, 75.2% were between 20 to 29 yrs, 5.1% between 30-39 years and 0.3% were above 40 years of age. 36% were primi gravidae, 39% were gravidae II and 25% were gravidae III and above. Booked cases were 59%.

Out of 2650 caesarean sections 62.75% were primary sections and 37.25% were repeat sections. Among the 1520 primary sections 91.4% were emergencies and 8.6% were elective. In the repeat sections 69.4% were emergencies and 30.6% were elective. On the whole, emergency sections were 83.25%.

**Table III**  
**Indications for C. Section**

Main Indication	No.	%
Previous C.S	987	37.2%
CPD	450	17.0%
Fetal Distress	325	12.3
Breech	193	7.2
Other Mal pre	47	1.8
PIH & Ecl	210	8.0
PROM	150	5.6
Prolonged & Obs L.	116	4.3
APH	92	3.5
Others	80	3.1
<b>Total</b>	<b>2650</b>	<b>100%</b>

**Table - IV**  
**Intraoperative complications**

Complications	Em No.	El. No.
Atonic PPH (mild to severe)	82	8
Extention to angles	78	6
Difficult Extraction	76	8
Difficult to approach L.S	26	9
Intrapartum sepsis	20	-
Broad ligament haematoma	16	-
Windowed Scars	16	-
Hysterectomy	11	-
Spinal Shock	10	2
Bladder injury	3	1
<b>Total</b>	<b>336 (15.2%)</b>	<b>34 (7.6)</b>

Eight cases required classical caesarean section for cancer cervix (4 cases), impacted shoulder presentation (1 case) and incomplete classical scar rupture (3 cases) at the time of repeat caesarean section. Previous 2 section cases were 113 (11.4%)

More than one indication was present in most of the cases. The single most common indication was previous caesarean section (37.2%). The second most common indication was dystocia (26%) due to CPD 17%,

malpresentations 9% and fetal distress 12.3%

Time interval between admission and emergency section - In 48% surgery was performed within 6 hrs after admission, in 45% within 12 hrs, in 5% between 12-24 hrs and in 2% between 24-48 hrs due to various indications.

**Table V**  
**Associated Risk Factors**

R.F.	Emergency Number	Elective Number
PIH	390	27
Eclampsia	43	-
HPT	6	2
RH-ve	40	7
Medical Disorders	121	22
Polio	10	3
Ca.Cervix	2	2
	<b>612 (27.8%)</b>	<b>63 (14%)</b>

**Table VI**  
**Maternal Deaths, Still Births & NND**

Maternal Deaths	Number	Fetal Deaths Number %
Pulm Embolism	5	Emergency
DIC	5	146 (5.5%)
PPH	2	Elective
Anaesthetic	2	10 (2.2%)
Septicaemia	2	Total 156 (7.7%)
Eclampsia	1	
Total Maternal Deaths (1992-96) : 140		
Deaths following C. section : 13 (9.3%)		
Deaths among C. sections (2650): (0.5%)		

In the emergency and elective sections the complications encountered during surgery were 15.2% and 7.4% respectively. Sambaray et al in 1996 reported a higher morbidity rate (41.74%).

Atonic PPH was mostly seen in high risk cases. Difficulty to extract the presenting part was encountered in cases with deeply engaged head and also when the head was high up and floating. Bladder injury and difficulty in approaching the lower uterine segment occurred in cases

of repeat sections.

Caesarean hysterectomy was indicated in 11 cases; 3 cases for uncontrollable PPH, 4 cases for gross intrapartum sepsis, 3 cases for incomplete rupture of classical scar and 1 case for placenta accreta. Post operative complications were mostly due to urinary and respiratory tract infections, ileus, wound sepsis and gaping. The incidence was 7.7% and 2.6% in emergency and elective sections respectively. Our incidence is found to be less but Sambarey et al (1996) reported a higher incidence 27.5% and 15.5% in emergency and elective sections respectively. The associated risk factors were present in 27.6% in emergency and 14% in elective sections.

### Scar Rupture

When the abdomen was opened for repeat section 30 cases had previous classical section scar (3%). Out of these windowed scar was seen in 10 cases (33.3%), In lower segment caesarean sections (97%), 6 cases (0.62%) had windowed scars. This complication was mostly due to late admissions, delay in shifting the cases to the OT, delay in administering anaesthesia and other related problems. All these are avoidable factors.

Subumbilical midline incision was made in 97% and Pfannenstiel incision was made in 3% of cases. 94% were operated under spinal, 5.5% under general and 0.5% under local anaesthesia.

Tubectomy was performed in 524 cases (19.7%).

Table VI shows the various causes of maternal deaths (0.5%). During the 5 year study period there were a total of 140 maternal deaths and deaths due to caesarean section were 9.3% among the emergency cases. The associated high-risk factors and surgical risk had contributed to the high mortality. The fetal deaths were 5.5% in emergency and 2.2% in elective sections

(excluding congenital anomalies and gross prematurity). Sambarey reported a PN mortality rate of 7.7% in emergency sections.

During 1987 to 1991, 739 cases were selected for vaginal delivery and 327 had successful vaginal delivery (44.2%) while 55.8% required repeat section. During the study period 338 patients were selected for vaginal delivery, 233 cases had vaginal delivery (69%) and 31% required repeat section. Thus with proper selection and careful supervision of trial of scar, vaginal birth rate could be increased. Kore (1996) reported a successful vaginal delivery rate of 50% while Phelan (1987) 81% in their study.

There must be careful selection of these women based on a review of events leading to the caesarean section in the previous pregnancy as well as factors affecting the feasibility of a trial of scar in this pregnancy.

### Conclusion:

Though caesarean section is considered a safe operation the maternal morbidity is high when compared to vaginal deliveries. If proper decision is taken to select the cases for caesarean section, the number of primary sections could be brought down. Post caesarean pregnancies are high-risk cases and need close supervision, scrupulous care and evaluation. Vaginal deliveries should be undertaken in the hospitals with appropriate facilities and staff.

### References

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