INCREASING C.S. RATE : DOES IT REALLY IMPROVE MATERNAL & PERINATAL OUTCOME ?

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SUMMARY

An analysis of twenty years of C.S. rates at a teaching institution is being done for its efficacy in improving the obstetric outcome. It was found that C.S. rates increased by 169% but the Maternal & Perinatal mortality rates did not show any change. Also, it was found that perinatal mortality due to birth asphyxia and septicaemia was infact increasing. There was no change in the perinatal outcome of babies born through C.S. Also the quality of patients received at the institution remained the same. It can thus be concluded that at an institution if the quality of maternal and perinatal services has not improved, only increasing C.S. rates will not improve obstetric outcome.

INTRODUCTION

Over the years, most institution through out the world have experienced a rising trend in rates of cesarean sections (C.S.). This has been by many studies in India (Bhide - 1992) Arora et al - 1991) and abroad (Norzonet al 1987, Gilstrap et al 1984). No wonder, it is now the right time to sit down and audit these trends a little more carefully and closely. The commonest understanding going behind their rising trend of C.S. is that it, improves maternal and perinatal outcome. In the study presented, this understanding is being examined for its validity.

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MATERIAL & METHODS

This is a retrospective analysis of twenty years carried out in the department of Obst. & Gynec., Medical College and SSG Hospital, Baroda from 1st January 1974 to 31st December 1993. During this period, trends of caesarean sections were identified and analysed in the light of maternal mortality and perinatal mortality rates at

our institution. So as to make the analysis more meaningful, individual main contributing factors to these rates are also analysed. Attempt has also been made to identify these trends at the institution which might indicate any change in the type of clientel received at the institution and if that be so, whether that had any bearing on the trends of C.S. rates. Results so obtained were analysed and understood in the light of current literature and conclusions drawn therefrom.

RESULTS

This study period of twenty years have been divided into group of 5 yrs. each. (Table I)

This table shows the trends of C.S. rates in light of the trends of maternal mortality and perinatal mortality rates. As shown, C.S. rates showed a significant rise of 169.46% ($P < 0.0001$) over the past 20 years at the institution. On the other hand maternal mortality rate and perinatal mortality rate did not show any significant difference ($P > 0.05$) over the period of years. Though a sizable percentage of C.S. now are due to previous C.S. (abouy 26%), the primary C.S. in these were done basically for improving the maternal and perinatal outcome. However, when the trends are analysed, there was no significant difference in these rates.

Table - I
C.S., MMR & PNMR Trends

Year Group of 5 yrs.	C.S. rate in %	M.M.R. (%)	PNMR	PNMR in C. S.
1974 - 78	4.65	1.48	77.34	13.23
1979 - 83	6.47	1.59	60.07	12.24
1984 - 88	9.53	1.33	83.21	13.9
1989 - 93	12.53	1.34	84.2	13.9

Table - II
TRENDS OF IMPORTANT CONTRIBUTORS TO PNM

Year Group of 5 years	Birth Asphyxia (%))	Septicemia (%)
1974 - 78	4.8	6.1
1979 - 83	6.57	8.26
1984 - 88	6.91	8.58
1989 - 93	10.22	10.22

(Table II)

Principle indicator of C.S. in fetal interests were for foetal distress, prolonged labour, premature rupture of membranes and cephalopelvic disproportion. It was therefore decided to analyse the increased C.S. rates in the light of their effects on these conditions - fetal distress and others. Perinatal mortality due to these causes should have shown a significant decline, when due to birth asphyxia, and septicemia. However, table II shows that PNM due to birth asphyxia rose significantly from 4.8% to 10.22% ($P > 0.001$) and septicemia from 6.1 to 10.22 ($P < 0.001$). This was a paradoxical trend. Instead of falling PNMR due to these causes increased.

Also, PNM in babies born through C.S. irrespective of the indication remained interestingly constant of around 13.3% throughout these twenty years. Thus C.S. in itself could not save more babies.

(Table III)

cated cases are coming now and so more caesarean sections. In table III the validity of this theory is examined. Is has been found rupture uterus, neglected impacted shoulder and eclampsia - three sensitive reasons for referring cases to the institution have remained by and large constant with insignificant fluctuations over last twenty years.

DISCUSSION

Increasing rates of C.S. throughout our fraternity has been a matter of attention. Though many factors have caused this increase, the basic reason for the same has been to improve maternal and perinatal outcome. However, in institutions where the type of patients received and the quality of obstetric and neonatal care provided, it has remained by the large same over the years. Increasing the C.S. rates is not an answer to improve the obstetric outcome, as has been borne by this study.

Table - III
TRENDS OF SOME INDICATORS SHOWING TYPES OF PATIENTS RECEIVED

Year Group of 5 years	Rupture uterus	Neglected impacted shoulder	Elampsia
1974 - 78	5.27	3.6	3.85
1979 - 83	5.83	3.68	3.91
1984 - 88	5.44	2.95	3.62
1989 - 93	4.99	3.36	3.08

One of the popular arguments for increasing C.S. rates is that the type of patients referred to the institution has probably changed and more difficult and compli-

P.Sudha & Rajan (1993) could show that the influx of modern technology and its judicious use can reduce C.S. rates and at the same time improve the obstetric

outcome. Bhide (1992) mentions that increased frequency of C.S. has been accompanied by an absolute decrease in perinatal mortality. However he also adds that a cause effect relationship between the two cannot be established unequivocally. In the present study we have not found any consistant reduction in PNMR in last twenty years where C.S. rates increased by nearly three times. In India we have to be sensitive to this fact that though they are so called " tertiary" centres in name, many referral institutions have to continue giving the same quality of obstetric and neonatal care, thanks to many other factors including paucity of resources. Thus by simply resorting to C.S. as this surgery is now very safe, we cannot reduce mortalities due to birth asphyxia, septicemia and others which over the period of these years have increased.

A constant rate of perinatal loss of babies born through C.S. in this study, further shows the limitation of this surgery in reducing the perinatal loss.

With the periphery or referring units becoming more strong, it was expected that over the period of years the type of patients being received at the institution might have changed. However, on analysis of the results of this study we did not find any significant change in the type of patients, we are catering to. The three sensitive parameters used herein for such a evaluation were rupture uterus, neglected impacted shoulder and eclampsia.

Thus, if at an institution where the quality of obstetrics and perinatal services have not improved, increased indulgence in C.S. will not be able to improve the maternal and perinatal outcome figure of that institution.

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