MATERNAL MORBIDITY AFTER EMERGENCY CAESAREAN SECTIONS

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SUMMARY

Although there is a tremendous increase in caesarean deliveries in modern obstetrics, the morbidity associated with this operation is also significant. In this study an attempt is made to analyse the maternal morbidity in emergency caesarean sections.

In one year's study, out of 1029 caesarean sections, 862 were done in emergency (83.76%). Most of the cases were associated with some risk factors which also contributed to increase in post caesarean morbidity. Intraoperative complications were more in emergency sections (10.8%) than in elective sections (4.2%). Post-operative morbidity after emergency caesarean like febrile morbidity, wound infections and endometritis (27.03%) were significantly higher than after planned sections (18.4%). The hospital stay was more after emergency caesarean sections than after elective ones.

INTRODUCTION

With improved obstetrical services the importance of caesarean delivery has increased a lot as both maternal and fetal interests are being looked upon equally. Eventhough the operation has become relatively safe, the intraoperative and postoperative problems are still the factors to be concerned about and the risk of developing some morbidity following caesarean section is definitely greater than following vaginal delivery.

In this study, an attempt is made to analyse the maternal morbidity after emergency caesarean section. Caesarean morbidity is mostly described as febrile morbidity with endometritis, urinary tract infection and wound infection as important

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causes for it.

MATERIAL AND METHODS

All the patients undergoing caesarean section in one year (1992-93) were analysed and the results were studied. The cases were studied under various parameters like emergency or elective, indication for section, associated preoperative risk factors, intraoperative complications, postoperative morbidity and follow up.

OBSERVATIONS

In our study, emergency caesareans, which constituted 83.76% of the total caesareans included both patients coming to labour room directly as well as those referred from other hospitals (Table I and II). The cases operated in emergency were mostly in labour and risk factors like obstructed labour, PROM, antepartum haemorrhage, maternal exhaustion, failed trial added to maternal morbidity.

Table No. I
Incidence of caesarean section

Total deliveries (1992 - 93)	Caesarean sections	
5901	1029 (17.43%)	(Elective - 167 (14.24%) Emergency - 862 (83.76%)

Table No.II
Indications for caesarean (operated in emergency)

S.No.	Indication	Cases (862)	%
1.	Fetal distress	232	26.9
2.	Cephalopelvic disproportion.	124	14.3
3.	Previous Caesarean section	191	22.1
4.	Prolonged and obstructed labour.	82	9.52
5.	Severe PIH and eclampsia	65	7.54
6.	Antepartum haemorrhage	25	2.90
7.	Malpresentation and malpositions.	100	11.60
8.	PROM with failed induction	74	8.58
9.	Others	44	5.10

Assosicated Risk Factors:-

There were many risk factors associated which were directly or indirectly responsible for development of some kind of postoperative morbidity. Out of 1029 cases, 586 were unregistered and did not attend any antenatal clinic regularly which might be a major risk factor. Anaemia, PIH and PROM constituted major risk factors (Table III). In many cases there were combinations of factors like PIH and PROM, PIH and abruptio, PROM and prolonged labour etc.

Intraoperative risk factors and complications :-

The main intraoperative risk factors responsible for postoperative morbidity were anaesthesia, intraoperative complications and difficult extraction (Table IV). These

Table III
Associated Risk Factors:

S.No.	Risk Factor	Cases (1029)	%
1.	Anaemia	163	15.84
2.	PIH and eclampsia	143	13.88
3.	Prolonged labour	82	7.96
4.	Premature rupture of membranes.	74	7.19
5.	Antepartum haemorrhage	32	3.10
6.	Maternal exhaustion	9	0.87
7.	Failed forceps/Ventouse	4	0.38
8.	Medical disorder Resp. Inf., UTI, Heart disease, Diabetes etc.	44	4.31

Table IV
Intraoperative Risk Factors and Complications.

S.No.	Intraoperative risk factor	Cases (862)	%
1.	Use of general anaesthesia	207	24.01
2.	Difficult extraction of baby	60	6.96
3.	Excessive haemorrhage	55	6.38
4.	Bladder injury	4	0.46
5.	Ureteric injury	1	0.11
6.	Bowel injury	1	0.11
7.	Extension of uterine incision	32	3.71

Table V
Postoperative Morbidity.

S.No.	Morbidity	Emergency C.S. 862	Elective C.S. 167
1.	Pyrexia	80	6
2.	Wound infection	60	4
3.	Endometritis	23	5
4.	Urinary tract infection	22	4
5.	Paralytic ileus	11	1
6.	Thrombo-phlebitis	6	1
7.	Burst abdomen	2	0
8.	Endotoxic shock	4	0
9.	Others	30	5
		238 (27.5%)	26 (15.5)

Table VI
Correlation between preoperative risk factors and postoperative morbidity

S.No.	Risk Factors	No.of cases	Morbidity	No.of cases & Percentage
1.	Anaemia, poor S.E. status, poor nutritional status.	163	Pyrexia, wound infection.	72 (44.17)
2.	Prolonged labour obstructed labour	82	Pyrexia. wound infection. endometritis paralytic ileus.	44 (53.65%)
3.	PROM with failed induction	74	Pyrexia wound infection, Endometritis. Endotoxic shock.	32 (43.25%)
4.	Intrauterine sepsis	11	Wound infection. Burst abdomen. Endometritis. Endotoxic Shock.	9 (81.8%)
5.	APH	26	Pyrexia	13 (50%)
6.	Intraoperative difficulties	101	Pyrexia wound infections. Paralytic ileus.	10 (40%)

problems added to the postoperative morbidity.

Postoperative morbidity :-

The postoperative morbidity in all patients undergoing caesarean section was studied. Pyrexia, wound infection, endometritis and urinary tract infections were the common postoperative complications (Table V). The morbidity after emergency caesarean sections was comparatively higher (27.5%) than after elective one (15.5%). The hospital stay was prolonged in cases who developed morbidity. Morbidity was higher in cases who were already febrile and had undergone multiple vaginal examinations.

Multiparous women, unregistered cases and cases with associated risk factors had significant postoperative morbidity. The relationship between preoperative risk factors and development of morbidity was evaluated as shown in Table VI. In many cases there were combination of risk factors like PROM with obstructed labour, anaemia with APH etc. The morbidities seen commonly were pyrexia and wound infections.

DISCUSSION

Byrant (1961) Dean and Taylor (1962) and Gibbs (1979) have reported high morbidity after emergency caesarean sections in their studies. Hawrylyshyn et al (1981) described high morbidity after emergency caesareans mostly due to prolonged labour, multiple vaginal examinations, PROM and anaemia. Hagglund et al (1983) also reported higher morbidity after emergency caesareans and noted prolonged surgery, blood loss, intrauterine infection and prolonged labour as risk factors.

Chakraborti and Dawn (1984) had found 37% morbidity rate after caesarean sections with same risk fators as causative elements.

Endometritis, wound infection and bacteriuria were common morbidities described by Chaturvedi and Bhargava (1986) with PROM prolonged labour, multiple vaginal examinations, anaemia, lack of antenatal care as risk factors.

Arora and Oumachigui (1991) had however reported a decline in maternal morbidity after caesarean section over a period of last 10 years.

Our study also shows comparable findings. The higher incidence of maternal morbidity after emergency caesarean section is significant. Also a strong correlation was found between various risk factors and postoperative morbidity.

The maternal morbidity in our study i.e. pyrexia, wound infection, endometritis etc. had significant correlation with preoperative risk factors (Table VI). Cases of multiparity, unregistered patients, anaemia, prolonged labour, PROM, APH, intraoperative complications, etc. were found to develop postoperative morbidity more commonly. Many cases had combination of postoperative complications like fever and wound infection, fever and endometritis etc. Other risk factors associated with postoperative complication were pregnancy induced hypertension, respiratory tract infections, obesity, general anaesthesia, multiple vaginal examinations, maternal exhaustion, diabetes etc.

SUMMARY AND CONCLUSION

In this study the incidence of emergency caesarean section was significantly higher.

Most of the cases were associated with some risk factors and caesarean had to be done without managing these risk factors, contributing to higher morbidity.

Many cases, referred from other hospitals were in advanced labour with multiple vaginal examinations done and developed morbidity more commonly than others.

Intraoperative difficulties and complications were more in emergency caesarean sections.

Postoperative febrile morbidity and wound infections were significantly higher after emergency sections than after elective section.

Preoperative risk factors contributed to postcaesarean morbidity in most of the cases.

Thus preoperative health status of mother, proper antenatal examinations and identifying the risk factors may help in bringing down maternal morbidity.

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