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Case Report

Perimortem Cesarean Section Case Report

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Abstract

In this case peri mortem cesarean delivery done to save the fetus after maternal cardiac arrest with failed maternal resuscitation maternal pulse restart after delivery directly.

Keywords: *Peri Mortem Cesarean Delivery; Maternal Resuscitation*

Introduction

Cesarean delivery was started in the obstetrics history to save the fetus in the late pregnancy if mother died. by time it is found that if delivery done in quick time it will not save the fetus only but it will help maternal circulation and cardiac function return.

Case Report

38 years old G6P5 unbooked. Pregnant at 34 weeks with 5 previous cesarean sections. And history of recurrent preeclampsia in the last 3 deliveries that needs emergency early delivery with mgso4 covers till post-delivery 24 hours. Presented to emergency department with severe headache and abdominal pain and dizziness on examination pt is drowsy blood pressure 220/160 heart rate 105 reflex exaggerated. With 3 plus protein urea on dipstick. On arrival at time of resuscitation patient start convulsion (eclampsia) and resuscitation started with controlling blood pressure by labetalol iv bolus 20 mg and $MGSO_4$ 4 gm loading dose in 50 cc normal saline IV over 5 minutes At this time patient has cardiac arrest and code blue directly initiated and the team arrived quickly and start resuscitation with CPR. On the same time obstetrician (consultant and registrar) brought ultrasound to check for fetal heart Resuscitation continued for about 8 minutes with no maternal pulse can be detected.

The obstetrician start to do cesarean section in order to save the fetus and quick bloodless operation done delivered baby boy weight 2.1. KG and only skin was started to be closed directly after delivery maternal pulse restart the obstetrician open the rest of the skin and clean the hall abdomen with antiseptic and start closing the uterus in two layers and rectus muscle and skin closed by stables patient was on anti-hypertensive medication (labetalol and hydralazine) and on $MGSO_4$ patient kept intubated in ICU for that night on the 2nd day patient start to have tachycardia 115 and blood pressure 120/70 hemoglobin drop from 11 to 9 and ultrasound done which revealed intraabdominal collection about 300 cc and decision to do laparotomy on relaparotomy small bleeder from rectus muscle found and closed patient become stable after transfusion of 2 packed red blood cells and stayed that night in ICU and then transferred to obstetrics department 3rd day post-operative patient reviewed was in stable condition. Patient did will after removing catheter mobilize with positive cognitive function and on day 6 patient discharge with her baby in a good condition. On bid 200 mg labetalol and paracetamol and iron tab.

Time from Maternal Arrest to Delivery, min	Return of Spontaneous Circulation, Improvement of Hemodynamic Status, or Both	No Change in Maternal Status
0-5	5	2
6-10	3	-
11-15	1	-
> 15	4	5
Not reported	1	1

Table 1: *Cases of maternal improvement upon cesarean delivery of infant.*

Time from Maternal Arrest to Delivery (min)	Gestational Age (wk)	Normal Infants	Total Infants
0 - 5	25 - 42	8	11
6 - 10	28 - 37	1	4
11 - 15	38 - 39	1	2
> 15	30 - 38	4	7

Table 2: *Infants with time of maternal arrest to perimortem cesarean delivery.*

Discussion

Uteroplacental blood flow may require up to 30% - 50% of the maternal cardiac output during pregnancy, and this may be recruited for perfusion of other visceral organs after delivery. clinical evidence suggest that cardiac compressions are more effective after delivery.

When previous maternal resuscitative efforts have failed, cesarean delivery of the infant is beneficial to both the infant and the mother. Emptying the uterus improves maternal physiology and the effectiveness of CPR. The data from Katz., *et al.* support this notion 34 cases PMCD 24 babies survive in reviewing many published cases 60 patient having peri mortal cesarean delivery 19 patient survived with no morbidity [1] it is clear delivery of the fetus will facilitate maternal resuscitation and decrease aortocaval compression.

Resuscitation should be activated by the protocol for a PMCD as soon as cardiac arrest is identified in a pregnant woman whose uterus extends to or above the umbilicus. After quick delivery maternal resuscitation should be started and immediately [2]. When the pregnant uterus is large enough to cause maternal hemodynamic changes as a result of aortocaval compression, PMCD should be considered regardless of fetal viability [3].

Conclusion

In late pregnancy where mother collapse it is better to do early cesareain section not only to save fetus but to improve and return maternal hemodynamics multiple data have shown that the early the delivery the best outcome.

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