

Post-Mortem Caesarean Section Performed 20 Minutes after Maternal Cardiac Arrest: A Case Report

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ABSTRACT

Background: Postmortem caesarian section is defined as a low segment caesarian section that is performed to deliver a fetus after the death of his mother. **Objective:** An approach of when and how to manage a post-mortem pregnancy. **Materials and method:** in this report, we are discussing a case of 26 years old, primigravida, 39 weeks pregnant Nigerian patient who was arrested, unconscious and unresponsive. Post-mortem caesarian section was performed and a live fetus was delivered. **Results:** Duration between the mother cardiopulmonary arrest and performing a Pfannenstiel incision was a total of 20 minutes. A live baby boy was delivered weighted 2.278 Kg with an Umbilical cord pH: 6.7 and APGAR score of 0-0-3-4 at 1,3,5 and 10 minutes respectively, the baby was comatose and cyanosed after the delivery but showed a slight respond 5 minutes later. Eventually, the baby was admitted to the neonatal intensive care unit(NICU). The reason for the mother's cardiac arrest is unknown and her medical condition was unrecorded. **Conclusion:** According to the information mentioned above. The only solution to manage this case was performing a post-mortem caesarian section as quickly as possible.

Keywords: postmortem caesarian section, pregnancy, cardiac arrest.

INTRODUCTION

Delivering a live baby by cesarean section after the death of the mother is a rare event that has always been a concern regarding its management and outcomes ^[1,2].

The history of the past hundred years revealed a high fetal mortality rate. However, numbers of reported cases are still not enough to find a plan to manage these cases in a definitive way ^[3].

Mother's health condition and sudden incident (trauma) that may occur at the third trimester of pregnancy are plenty, these risks may vary between each patient and could change the plan of treatment ^[1,6]. As a way to find a solution, a 4 minutes role was set which means that the baby should be out within 4 minutes of the mother first arrest started, but reports about similar cases showed a significant difference of the duration time of delivering the baby and the baby status after the birth ^[4,5,6].

CASE REPORT

A 26 years old, primigravida, 39 weeks pregnant Nigerian patient was transferred by an ambulance to the ER department, according to paramedics reports patient stopped responding in the ambulance at 3:14 AM, code blue was announced immediately at the arrival to the hospital and the patient was unconscious, unresponsive with no pulse and her vitals were not able to be detected. Consultation for Obstetrics and Gynecology department was ordered then doctors performed an ultrasound that revealed a positive fetal heart. An emergency lower segment cesarean section was performed at the CPR room in the Emergency Department. At 3:34 AM a baby boy was delivered, baby weighted: 2.278 kg with an

Umbilical cord pH: 6.7 and an APGAR score of 0-0-3-4 at 1,3,5 and 10 minutes respectively. The baby was cyanosed and comatose with severe bradycardia. He was resuscitated and intubated in the ER then shifted to the neonatal intensive care unit (NICU) and connected to a mechanical ventilator. Total time between announcing the patient unresponsiveness and getting the baby out was a total of 20 minutes. Mother declared dead after 35 minutes of performing CPR. The Baby stayed at the neonatal intensive care unit(NICU) under observation, but the baby was arrested and died at the age of 35 days old.

DISCUSSION

As maternal cardiac arrest is a rare and uncommon event, equipment and preparation to manage a similar case are not always ready to handle the patient at the scene ^[7,8]. The fetus has a limited time to tolerate the hypoxia that may lead to organ damage, so management should be fast ^[9]. Doctors may hesitate in these kinds of cases because it's known for their lousy outcome and high mortality rate. As the 4 minutes role has been set, every minute counts so any delay could affect the fetus survival ^[10].

A team of obstetrician and pediatrician should be always ready to perform a caesarian section at the scene which should be performed within 4-5 minutes rate in order to get the fetus out and start chest compression sufficiently ^[4]. Even at a hospital that does not have these departments, paramedics and emergency doctors should be trained and prepared as well ^[11,12]. In conclusion, performing a caesarian section as soon as possible may give the fetus a better chance to survive and avoid neurological manifestation ^[13].

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