



POST-MORTEM CAESAREAN SECTION AND ITS MEDICOLEGAL IMPORTANCE

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ABSTRACT Post-mortem Caesarean Section is not a very uncommon assignment to an Obstetrician. It is required to be undertaken to save the foetus in advanced stage of development and still in-utero, while the mother has just died. Little is known regarding its medicolegal aspects. Guidelines or protocols are not found in the literature. The situation is made more confusing by the lack of circulars or directives from the government/law enforcing agencies. In this original article it has been attempted to discuss the factual matter of Post-mortem Caesarean Section along with the historical overview as well as to formulate a guideline for medicolegal purpose.

KEYWORDS : Post-mortem, Caesarean Section, Guideline, Medicolegal aspects.

Introduction: When a woman in late pregnancy has a cardiac arrest and resuscitation fails, should an attempt be made to save the life of the baby by Caesarean Section? Many obstetricians would hesitate to operate in this circumstance as they need to have a clear view on whether and when to operate in such cases. Traditionally Post-mortem Caesarean Section (PMCS) is required to be undertaken in two circumstances; firstly to save the life of the foetus of viable age and still in utero while the mother has just died or dying and secondly as a part of some religious, social or community practices.

The first indication is medically important and arises as not a very uncommon assignment to an obstetrician. Some literatures and statistical documentations, both recent and remote, are available regarding this. The second indication, though arises rarely poses vexing medicolegal problem both for the obstetrician and the forensic pathologist because of the following facts: i) Guidelines or protocols are not available and ii) there is lack of directives from the law enforcing governmental agencies.

As such through this paper it has been attempted to highlight the factual matters of PMCS as well as to invite scientific logical discussion from the learned forensic brotherhood with a view to clear confusions and finalise formulation of a guideline for medicolegal purpose.

Aims and objectives:

1. To know what is Post-mortem/Perimortem Caesarean section.
2. To search for the Historical perspectives of it.
3. To find out the social, ethical and religious background.
4. To formulate a guideline regarding the medicolegal aspects of it.

Materials and methods:

1. Thorough review of authentic literature mentioned in the reference and extraction of factual matter from there.
2. Searching of internet for information regarding the matter under discussion.
3. Formulation of a practical medicolegal guideline based on the law of the land and medical ethics as prescribed by Medical Council of India and as amended.

Discussion: Let's have a brief overview of the historical background of PMCS which may guide us towards formulation of medicolegal guideline. The concept and procedure of Caesarean section, one of the oldest surgical procedures in history, was introduced to be undertaken unless the mother was dead or moribund. According to Greek mythology, the physician Aesclepius was delivered by his father, Apollo, from the womb of his dead mother, Koronis, by PMCS. First reliable reference to a successful PMCS is by Pliny the elder, relating to birth in 237 BC of Scipio Africanus, the Roman general who defeated Hannibal.

The term Caesarean came from the ruling (part of Lex Regia later Lex Caesare) made by Numa Pompilius, the second king of Rome, who in 715 BC decreed that if a woman died whilst pregnant, the child must be delivered by cutting her abdomen. By the middle ages, the Catholic Church, supported by the municipal authorities, was releasing edicts requiring PMCS to be conducted so as to save the soul of the child through Baptism. In almost all European countries, during post renaissance period PMCS was introduced as one of the philanthropic and medico-political goals of the enlightenment. In Sicily and in the kingdom of Greece, ruled by the Catholic Wittelsbach family, failure to carry out the operation could even be punished by Death sentence.

The brief account of a Post-mortem Caesarean Section was described in a textbook on midwifery by the famous German obstetrician Freidrich Benjamin Osiander (who postulated Osiander's sign) in 1821.

Garuda Purana (pronounced as GARUR POORAN) is one ancient Sanskrit Literature which deals with the essential ceremonies required to be performed after death as per Hindu culture and religion. In one of its verses it directs that when a pregnant woman dies the unborn baby under seven months must be taken out and buried before cremation of the woman. If the baby is above seven months and dead in utero, it should be taken out from its mother's womb and to be cremated separately.

The rituals following death in Muslims are guided by the Muslim personal law which is based on the principles and teachings of Hadis. The verse no. 634 of Hadis tells that if a woman has died and there is a living child in her womb, it should be brought out in the safest possible way, even if there be no hope of the child's survival. According to verse no. 648 of Hadis it is haram to dig open the grave of a Muslim. Verse no. 650 of Hadis describes the exceptions to the verse no. 648. According to it digging up of the grave is allowed when the grave is opened up for a legal purpose which is more important than exhumation; say for example when it is proposed to take out a living baby from the womb of a buried woman.

In the Arabic literature during the first century CE, the famous author Al-Beruni had mentioned the birth of a folk hero, named Ahmed-Ibu-Sahl, by PMCS. In a book by towering Islamic religious figure Imam-Abu-Hanifah (699-767 CE), it was mentioned that an operation on a living or dead woman to save the life of an unborn child is allowed in Islam. Abu Hanifah ranks as one of the greatest jurists of Islamic civilization and one of the major legal philosophers of the entire human community. He attained a very high status in the various fields of sacred knowledge and significantly influenced the development of Muslim theology. During his lifetime he was acknowledged by the people as a jurist of the highest calibre.

Fatawa-e-Alamgiri (also known as Fatawa-i-Hindiya and Fatawa-i

Hindiyya) is a collection of Islamic decrees pronounced by Aurangzeb, The sixth Mughal Emperor and compiled by Sheikh Nizam-Ud-Din of Burhanpur in which it is written that if a pregnant woman dies and a child is expected to be alive in the womb, then the child must be removed by operation. It also says that the operation should be performed to save the life of the mother even if the child is known to be dead.

During the late 19th and early 20th centuries case reports began to arise of PMCS successfully salvaging the foetus and the procedure began to be seriously considered as a legitimate medical intervention. During the 1980s several authors reported unexpected maternal recoveries following PMCS, performed on moribund in-labour mothers. As such some authority started preferring the term Perimortem Caesarean section in place of Post-mortem Caesarean section.

Because current pregnancy related death rates are fortunately coming down, PMCS is rarely required at present. Despite the rarity of PMCS, it is worthy of attention due to the fact that when appropriately applied it can save the life of both the mother and the baby. Furthermore recent literature suggests that the role of PMCS may be broader than previously envisioned and the procedure may attain a more prominent role in the future. This is why we should cultivate different aspects of PMCS. We should also have a clear view of its indications, contraindications and other ethical, legal and social issues.

Observation and Conclusion: Now the fundamental questions that are required to be answered are-

1. Whether PMCS should become mandatory?
2. When is the right time to intervene?
3. What may be the contraindications?
4. Whether to issue two death certificates when mother and the baby both die following the operation?
5. What are medicolegal issues that may arise?

It has already been mentioned that there are no clear cut guidelines. To find the answers to the questions raised above we like to put forward few arguments and suggestions. Let us start with the contraindications. The contraindications of PMCS are-

a) The foetus is too premature to survive ex-utero. The cut-off gestational age is considered to be 20 weeks in USA. In India the lower limit of period of viability is 28 weeks (estimated foetal weight approx. 1500 grams.) However with modern neonatal care, foetuses weighing 1000-1500 grams of gestational age 24-26 weeks do survive in good percentage (about 80%). So known or estimated gestational age of less than 24 weeks may be considered a contraindication.

b) Return of spontaneous circulation of mother after a brief period of resuscitation.

Usually the circumstantial situation influence the taking of decision regarding whether and when to undertake PMCS. Several factors must be considered in taking decision in this context. The first is the estimated gestational age of the foetus. This information is sometimes difficult to obtain in an emergency situation. Allowing time to perform an ultrasonography for estimation of gestational age is not always feasible or practical. Thus a gross clinical estimate is enough. The resources of the institution should also be considered while making decision. Preceding condition of the mother greatly influences the outcome and as such making of the decision. Foetal salvage rate is higher in maternal sudden deaths than insidious deaths due to some disease condition. Another concern relates to the length of time between cardiac arrest of the mother and delivery, also the time taken to institute resuscitative measures following the cardiac arrest. The best outcome in terms of neurological status of the infant appears to occur if the infant is delivered within 5 minutes of maternal cardiac arrest.

De Pace et al described successful salvage of both mother and baby after 25 minutes of advanced cardiopulmonary resuscitation which had begun immediately after maternal cardiac arrest. Lopez-Zeno et al reported intact foetal survival with delivery 47 minutes after fatal maternal injury by gun-shot wound, with the mother having received no resuscitation until 25 minutes after injury. The latest reported survival was of an infant delivered 30 minutes after a maternal suicide.

Although these cases are unusual they highlight the fact that a decision not to deliver (i.e. not to undertake PMCS) the foetus may well leave some unanswered questions not only for the obstetrician but also for the remaining family. These findings suggest that considering PMCS is prudent even if there has been some delay after a diagnosed cardiac arrest of the mother.

Now regarding the question whether to issue two death certificates for the mother and the baby if the later cannot be saved, there is no such clause in the Registration of birth and death act. But it seems justified to issue two death certificates for the mother and the dead baby if the later is having a gestational age of 28 weeks or above.

Now, the most important factor that may affect making of decision is potential medicolegal considerations. Fear of litigation may prevent intervention in what would be by all medical judgement appropriate circumstance for PMCS. It should be kept in mind, however, that no lawsuit filed on the basis of wrongful performance of PMCS have been reported in the literature. Only one legal penalty had been levied in regard to PMCS-the death penalty, which was given in the 18th century for failure to perform the procedure.

Clear policies on performance of PMCS are needed to be known to all staff of the catering institution particularly those delivering emergency and trauma care services. The decision to proceed for operation should be made at consultant level, preferably after thorough discussion with the next of kin and other relatives. Generally PMCS is deemed an emergency procedure for which consent is not possible. However, if the circumstances permit an informed consent should be obtained from the husband.

A special case of PMCS is the "Scheduled PMCS". This involves a woman who is deemed brain dead but is maintained on artificial support for the purpose of allowing foetal maturity. Successful cases of Scheduled PMCS have been reported in estimated gestational age as early as 6weeks, but an ethical issue arises regarding extraordinary support measures for the sole purpose of providing a foetal incubator. The most likely time frame for both successful support and acceptance of the value of support is at 24-27 weeks of estimated gestational age, when a few days make a large difference in terms of foetal outcome. Support beyond likely foetal survival is controversial. However when the situation involves, a ventilator dependent brain dead mother, being kept alive solely as a nursery next of kin decisions become relevant. Legal and possibly spiritual counselling should be sought.

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