Case Report

Double Death Due to Lack of Quick Response Team System

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Abstract:
Like in many other fields Quick Response Team (QRT) is necessary to save the life in medical field as well. It has been observed that, there is no trend of Quick Response Teams at casualties of even tertiary care centers. This is high time to develop the QRTs in addition to CPR (Cardio Pulmonary Resuscitation) teams. This type of team should diagnose the medical/surgical problems and make the quick and prompt decision with respect to treatment and further arrangement for treating the condition in an emergency situation. This case report is example of 'Double Death' case due to lack of a team approach in time. The main objective of presenting this case is to highlight the importance of Quick Response Team system, not only hospital based QRT but mobile QRT as well.

Keywords:' Double Death, Autopsy, Quick Response Team, Placenta,

Introduction:

"To start with death to set back the death". Duty of a medical doctor towards his/her patients is to prevent or postpone the death in an emergency situation. In case if death occurs then duty of a doctor is to find out the cause of death, time since death, place of death, manner of death & object causing the injuries which lead to death etc. Being an autopsy surgeon, he provides answer for all of the above except preventing or postponing the death. But the information provided by the case in this article helps to prevent or postpone the death in such cases in future, by implementing improvised system & by correcting the past mistakes. Here we are reporting a case of "Double Death" which is simple in outlook but on in-depth analysis there is lack of indeed in need system in this sophisticated & technologically advanced era. It is obvious that the Quick Response Team (QRT) system is either dead or in a frozen state, which is the need of the hour in medical profession.

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Case History:

A case landed up in autopsy room at 18:35 hours with the following history.
On the unfortunate morning at 09:15 hours a overcrowded four wheeler (car) while proceeding for opening ceremony of a new temple in a hurry, collided with a tree by the side of a tar road on the co-driver side as the driver lost the control. The deceased pregnant lady who was the wife of the driver was the occupant of the front seat. The deceased was semiconscious when she was received at casualty of a tertiary health care center at 14:30 hours on the same day after receiving first aid from a local hospital. There was no history of bleeding through any of the orifices. She was pregnant in the 3rd trimester (Gravida-2,Para-1). At the time of admission, pulse rate was 140/min, systolic blood pressure was 60 mm of Hg, diastolic blood pressure was not recordable, heart sounds present, bilaterally breath sounds present, and Glasgow coma scale score was 10/15. Fracture of the left tibia & lower end of left femur suspected. She was admitted in Neurosurgery and managed conservatively. She was seen by neurosurgeon, orthopaedician, obstetrician, cardio-vascular-thoracic surgeon (CVTS),

and physician at different time intervals with a time gap of 1- 3 hours as per individual references in total 22 hours of hospital stay and ended up in death (12:20 hour). Accordingly survival period was approximately 22 hours in hospital and 27hours from the time of accident.

Clinically cause of death was put as – 1.Brain stem bleed, 2.Diffuse axonal injury, 3.Closed head injury with right fronto-temporal-parietal subdural haemorrhage with 3rd trimester pregnancy (Intrauterine death) with disseminated intravascular coagulation, & 4.Cardiorespiratory arrest.

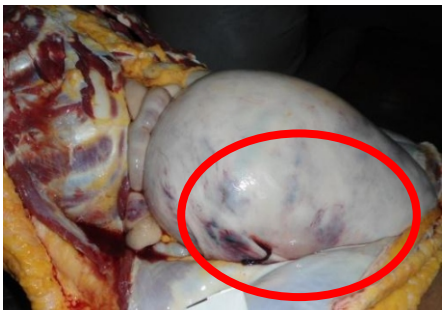
Autopsy findings: Dead body was that of an adult female with swollen eyelids and distended abdomen, with girth being 75 cm with linea nigra & striae gravidarum (Picture 1). There was abnormal mobility & swelling in the lower part of the left thigh suggestive of fracture femur. On internal examination 2nd & 3rd ribs were fractured on the right side. Two litres of blood stained fluid was present in the right thoracic cavity (includes postmortem seepage of body fluid). Both lungs were collapsed & pale. On opening the abdominal cavity contained two litres of blood stained fluid. Uterus was distended & pale (Picture 2) with multiple contusions and split tear on left outer as well as posterior surface (Picture 2 & 3). On opening the uterus there was escape of liquid blood but no clear amniotic fluid and fresh dead single foetus with adherent torn membranes (Picture 4). Placenta was seen on anterior fundal surface showing 75% separation with numerous retro-placental clots (Picture 5).

Subdural haemorrhage (SDH) was seen over bilateral parieto-temporal lobes. All other organs were pale.

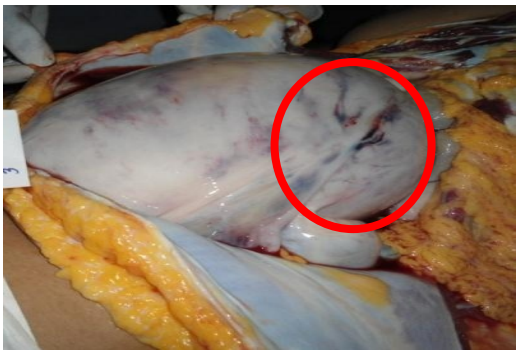
Examination of the dead fetus in primary relaxation (Picture 6) revealed no evidence of early post-mortem changes except corneal opacity (starts at two hours after death – Picture 8). Length of the fetus was 43 cms (Picture 7), weight 1669 grams & age was estimated to be between 34 – 36 weeks.

The cause of death was Haemorrhage and Shock as a result of blunt force trauma of abdomen.

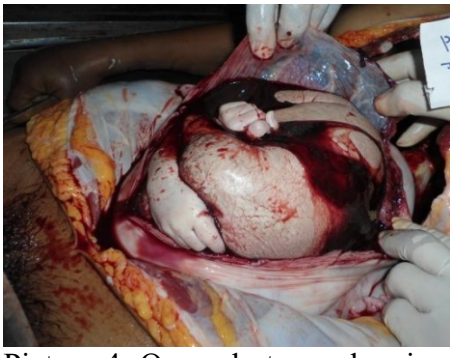
Picture-1: Body with distended abdomen & external injuries on the body.



Picture-3: Pale distended Uterus showing contusions and escape of blood



Picture-2: Pale distended uterus showing laceration.



Picture-4: Opened uterus showing fetus with blood and torn blood stained membranes.

Picture-5: Placenta showing 75% separation with retro placental clots.

Picture-6: Fetus showing primary relaxation.

Picture-7: Fetal length, 43 cms by fetometer.

Picture-8: Fetus showing corneal opacity.

Discussion:

Management of the pregnant patient sustaining trauma practically involves management of two patients (Mother & Fetus).

Formation & implementation of Quick Response Teams has decreased morbidity & mortality to a great extent in many countries. In 1995, Lee et al[1] published one of the first descriptions of the outcomes of using a Quick Response Team. In 1999, Goldhill et al[2] reported that implementation of a QRT was associated with a 26% reduction in cardiac arrest before patients were transferred to the Intensive care units (ICU). In 2000 Bristow et al[3] compared one hospital that had a QRT with two other hospitals that had conventional cardiac arrest teams. In that study, the hospital with the QRT had fewer unanticipated ICU admissions and a lower death rate for patients who did not have "do not resuscitate" orders than did the other hospitals. In 2002, Buist et al[4] reported that implementation of a QRT was associated with a 50% reduction in cardiac arrest outside the ICU. Bellomo et al[5] reported a decrease in unexpected ICU admissions and a significant reduction in the number of adverse events after a QRT was implemented.

The comparison between clinical & autopsy findings of the case are shown in the tabular form as shown in Table 1.

In this case, as it took five hours to shift the patient to tertiary care hospital since the time of accident & within 22 hours of hospital stay, she was attended by different specialists at different points of time as per the individual references, resulting into "Double Death". Instead, if these specialist would have had evaluated the patient as a team, or a mobile QRT would have had attended the patient at the scene of accident itself; this would have significantly made a difference with respect to outcome of the case.

	Clinical Investigations	**Postmortem findings**
CT-Brain	SDH in right fronto-temporo-parietal region.	SDH over bilateral parieto-temporal areas.
CT-Abdomen	a) Minimal pleural effusion on right side. b) No evidence of ascites.	a) 2 liters of blood stained fluid in the right thoracic cavity. b) Abdominal cavity contained 2 liters of blood stained fluid.
Trance Abdominal Sonography (TAS)	No evidence of placental separation.	Placenta separated (75%) with numerous retro-placental clots.

Julius Caesar was born on 13th July 100 BC; he was extracted out of the womb of his mother as she died during the labour, just because of the presence of mind of the medical attenders. In this 21st century, an era of cloning, invitro fertilization, organ retrieval & transplantation from dead to dying life, why can't we save the lives with so much of technological advancement and medical know-how. Here the question is whether mother would have been saved or baby would have been saved or both would have been saved, if a team of doctors would have had attended the patient immediately at a single point of time. We are lacking Quick Response Team system or the drive to create such system to cater for emergency situations.

Conclusion:

In the present case it is clear that there was ample time to save the life, outside the womb or inside the womb or even both, if some quick response would have been shown by a team of doctors.

Unlike traditional "CPR teams", the purpose of QRTs is to identify & treat patients before the patients' condition deteriorates' to the point that cardio-pulmonary resuscitation is needed. The role of the team is to intervene before a patient had a catastrophic event so that such loss of human life can be avoided, as it is obvious in this case.

It is the need of the hour to seriously think about constituting Quick Response Team system & making it effectively functional to ensure that patients get what they need & right when they need it.

The makeup of QRTs may vary from one hospital to another, and the specific implementation process varies depending upon the available resources and personnel. Quick Response Teams can be structured as per individual institutional or situational needs.

"Casualties Should Not Be Casual, Let Us Make Human Life Invaluable."

References:

1. Lee A, Bishop G, Hillman KM, Daffurn K. The medical emergency team. *Anaesth Intensive Care.* 1995; 23(2):183-186.
2. Goldhill DR, Worthington L, Mulcahy A, Tarling M, Sumner A. The patient-at-risk team: identifying and managing seriously ill ward patients. *Anaesthesia.* 1999; 54(9):853-860.
3. Bristow PJ, Hillman KM, CheyT, Daffurn K, Jacques TC, Norman SL, et al. Rates of in-hospital arrests, deaths and intensive care admissions: the effect of a medical emergency team. *Med J Aust.* 2000; 173(5): 236-240.

4. Buist MD, Moore GE, Bernard SA, Waxman BP, Anderson JN, Nguyen TV. Effects of a medical emergency team on reduction of incidence of and mortality from unexpected cardiac arrests in hospital: preliminary study. *BMJ.*2002; 324(7334):387-390.

5. Bellomo R, Goldsmith D, Uchino S, Buckmaster J, Hart G, Opdam H et al. Prospective controlled trial of effect of medical emergency team on postoperative morbidity and mortality rates. *Crit Care Med.*2004;32(4):916-921