

ETHICAL ISSUES IN CARDIAC PULMONARY RESUSCITATION (CPR)

Pages with reference to book, From 331 To 333

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The aim of the article is to outline some conceptual issues related to emergency care. There is no second thought about the provision of procedures which tend to prolong life, because by profession we are required to practice life prolonging procedures. However, there are other views to such practice which will also be discussed in this article.

HISTORICAL PERSPECTIVE

The idea of emergency care of the acutely injured or dying patient originated in antiquity, but it is only in recent years that methods based on better knowledge of physics and understanding of human physiology have been developed.

Boheim described a form of experimental closed cardiac compression as early as 1878. The first use of closed cardiac compression in man was reported in 1960 by Kouwenhoven, Jude and K. nicherbocher; their application of this technique to man was based on experimental work with dogs. The successful results in 20 patients led the researchers to confess that the real value of the method lies in the fact that it can be used whenever an emergency arises whether in side or out side the hospital; thus the concept of CPR was given a new thrust. The essential element of CPR is to support life and it may be defined as the recognition and immediate treatment of airway obstruction, respiratory arrest and cardiac arrest. It is often life saving for victims of ischaemic heart disease (IHD), electric shock, drug iritoxication road side accidents, drowning and suffocation. This simple but vital procedure can be learnt by doctors, hospital workers, police personnel and infact any intelligçnt member of the community regardless of prior education or training background.

DECISION TO INITIATE CPR

Decision to initiate or forego life prolonging procedure such as CPR presents profound medical and ethical dilemmas for the doctors, patients, affected families and the society. The doctor's image as the advocate and protector of life is challenged when a decision is made which may compromise with the dignity of the patient and prolong agony of the dying. Ethically correct choices for patients and doctors are needed. The drive to sustain life can conflict with another fundamental objective of medicine - the relief of sufferings. The conventional perceptions of life and death are now conceptual issues of mankind as the technology is marching ahead of the ethics.

Should CPR be attempted in every hospital patient who is near to death? if not under what conditions it should be with-held? The decision is a difficult one and is compounded by conflicting forces. On one side there is technological imperative i.e., pressure to perform a procedure because it can be done. Then, doctors are trained to act in favour of sustaining life. And there is possibility of legal threat if therapy is withheld. On the other hand, ethical and compassionate considerations can inhibit a doctor from carrying out procedures that may prolong sufferings and leave a patient devoid of dignity. In addition to above, limited success of resuscitative procedures and monumental financial costs may also influence the decision about initiating or continuing CPR or other-wise.

WHEN PATIENT DECLINES CPR

Majority of the followers of American School -of thoughts tend to support the choice made by an affected person who does not want to be kept alive by artificial means or decides to forego life sustaining treatment. Euthanasia¹ means gentle or easy death. Indeed, doctor has a responsibility to ensure that his patient dies with dignity and with as little sufferings as possible. The second meaning i.e., mercy killing calls for further comment. Euthanasia has been subdivided into compulsory,

voluntarily, active and passive euthanasia. However, there is no country up till now where euthanasia is legal.

In compulsory euthanasia decision is made by society and in active euthanasia drugs are given to cause death -both are totally unacceptable in medical profession. In voluntary euthanasia, an individual at the time of full control of faculties expresses his wish not to be kept alive; and it does have followers. In passive euthanasia, no effort is made to interfere with the course of nature.

ISSUE OF FUTILITY OF TREATMENT

Beddell et al² studied in-hospital CPR in 294 admitted patients and attempted to identify predictor of outcome. Fortyfour percent survived initial efforts, 33% survived for 24 hours, 14% were discharged from the hospital and 11% were alive upto 6 months. CPR lasting for more than 15 minutes resulted in only 5% survival; there were no survivors when CPR continued longer than 30 minutes. No patient with oliguria, acute stroke, sepsis, metastatic cancer or pneumonia survived. Amongst patients with hypotension, renal failure or left ventricular dysfunction and those who were home-bound, hospital survival was less than 5%. Age did not appear to affect the prognosis.

INFLUENCE OF ECONOMIC FACTORS

Should economic factors influence the doctor's decision to initiate or terminate CPR? Most doctors will argue that they should not be expected to deny a patient life saving procedure such as CPR, primarily, on the basis of cost. However, health economists believe that provision of treatment to one patient may mean denial to other, particularly, when the resources are limited and the demand is great. The patients requiring CPR usually occupy critical beds of a hospital, need intensive medical and nursing attention, require expensive equipments such as monitors, ventilators; and costly drugs and medicines have to be given. Here, concept of cost-effectiveness is involved. It is not the question that rupees one thousand or rupees one million are of more worth than a human life is, instead the fundamental issue is how to provide maximum benefits to the majority of patients through the application of available techniques by utilizing minimum resources.

ISSUE OF QUALITY OF LIFE

This is least suited to the scientific analysis and may appear to be intensely personal. Bedell and her associates found that depression is commonly observed after the survival but could be due to existing acute illness rather than the result of CPR. It was also seen that depression tends to be alleviated within 6 months after the discharge of the patient from the hospital. This finding appears to be encouraging from prognostic point of view.. The major residual disability for the patients who survived CPR was their limitation in functional status and confinement to home. In extreme age, prognosis lies with the nature of the underlying disease and not the age. An off shoot of issue of quality life is the selective nontreatment of babies born with severe disabilities when the parent do not wish to continue treatment. At the same time, even in-utero resuscitation of 19 weeks old foetus has been carried out in some centres after cardiac arrest.

WHEN TO TERMINATE CPR

Death is a gradual process at the cellular level with tissues varying in their ability to withstand deprivation of oxygen. The clinical interest does not lie in the state of presence of isolated cells but in the fate of a person. Cerebral death based on 3 flat electro-encephalograms on 3 separate days seen by neurologist or by a neurosurgeon may be misleading as this finding may also occur in acute barbiturate poisoning. Similarly, it is not possible to equate death with cessation of the heart beat as elective cardiac arrest of open heart surgery or spontaneous cardiac arrest followed by successful CPR is a common observation.

Royal College's criteria in declaring a person as dead is based on the neurological, assessment of brain stem reflexes (corneal reflex, breathing etc). Conference of Medical Royal Colleges in 1979 declared that brain death represents the stage at-which a patient becomes truly dead because by then all functions of the brain have been permanently and irreversibly ceased although it is possible to maintain functioning of some organs such as heart by artificial means.

In Pakistan, the medical profession faces diverse problems. Limited availability of resources i.e., shortage of trained doctors and nurses, lack of sophisticated equipment; and absence of proper sorting of patients based on clinical condition tends to complicate the health scene. In addition to above, patients or attendants. may not be in a position to participate in the health care decision making process due to variety of reasons. However, as the consumer awareness increases, quality care measures are enforced and cost consciousness prevails, ethical issues related to patient care are likely to gain more importance and affect the type of care to be provided to the patients, in future.

ACKNOWLEDGEMENTS

I thank Dr. S - Aslam Shah for his suggestions and Mr. Raheel for typing the manuscript.

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