

The Nurse's New Role In External Cardiac Massage

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ETERNAL cardiac massage is a medical life-saving procedure. It is done to restart the heart when cardiac arrest occurs. It is a procedure that involves the use of both hands to compress the chest. However simple it may seem, it is a procedure which can have severe complications if done incorrectly. It requires strength. After 5 to 10 minutes one is exhausted. Cardiac arrest can occur at any time affecting any age group and even healthy individuals. It occurs often to patients already hospitalized.

A few years ago cardiac resuscitation was primarily a surgical procedure. It required more time. A surgeon had to be on hand to open the chest, and equipment asepsis was necessary. More recently, physicians have relied upon the use of closed-chest massage with similar success.

Today, this procedure is fast becoming a responsibility of the nurse in emergency situations when a doctor is not available. It is felt that ward boys and other nursing personnel can also do this procedure with adequate instruction.

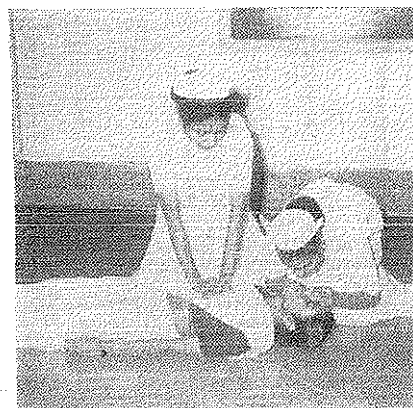
Selection of Patient

Good candidates are those whose hearts have not been stopped longer than 3 to 4 minutes and such cases as heat stroke, electric shock, myocardial infarction, drowning, and post operative arrests. It is not always possible to know which patients will survive and therefore make good candidates. However, if respirations are not started almost immediately (2 to 3 minutes) the heart will not start. Therefore, time must not be wasted on making a decision. The above points must be considered hastily along with signs and symptoms. The following are clearly seen in cardiac arrest:

1. The patient loses consciousness very suddenly, perhaps while speaking to you.
2. He becomes cyanotic very quickly and pulses are absent.
3. Respirations have ceased. Within one to three minutes pupils will dilate. The patient appears to be dead.

Method

Get the patient in a dorsal recumbent position on a firm surface—floor if possible. Maintain airway and keep chin pulled up. Holding nostrils closed, give mouth to mouth breathing (14 to 20 respirations per minute). Respiratory and cardiac measures should be started at the same time. However, if only one person is on hand, then artificial respirations must be started first. After about one minute, cardiac massage should be started. The two are then done alternately. Kneeling at the right side of the patient, place the heel of one hand over the lower sternum; place the other hand on top of that hand. Compress the chest by exerting body weight on the lower sternum. Maintain the pressure for



External cardiac massage—Mouth to mouth breathing

1½ seconds and release. Repeat at the rate of 40 to 60 per minute. The sternum should move 3 to 5 cm. when pressure is applied. Do not exert pressure on the rib cage or epigastrium. Care must be taken not to fracture the ribs.

Results

If external massage is effective, the carotid pulse can be felt and the pupils will constrict. Artificial respirations should continue until the patient takes over and until circulation is maintained. Get the patient to the hospital immediately. If patient is already in the hospital, send for the doctor when arrest occurs and carry out procedure until he can take over.

There are many things to be considered in doing this procedure. All those who undertake to do external cardiac massage should first be well instructed by a physician and the procedure should be sanctioned by hospital authorities.

REFERENCE

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The American Journal of Nursing, March 1965, page 84.
Current Medical Digest, January 1963, page 53.
Medical-Surgical Nursing, Shafer, Sawyer, McCluskey, Beck, 3rd Edition, 1964, page 257.



External cardiac massage—Keep chin up