Professional Activities in the First Aid Station and Holding Station on Doctor Level

Preface:

It is now well recognised how important organising early the professional activities to those soldiers wounded at front lines.

Not only the number of severely wounded have a greater chance of survival rate, but morbidity percentage decreased.

The front line station that receives the war casualties are primarily the Battalion Aid Station which is about 400 meters from the line of combat, the wounded men are evacuated either by foot or litter-carry or ambulant armoured vehicle.

The holding (collecting) station receive wounded men either from first aid station, or directly from combat-line, it is about a mile further from the first aid station, but essentially has a similar professional activities plus a greater evacuation activities.

Function:

The doctor in either of these stations should have already digested the following vital facts or points:

1- A wounded solider is resuscitated not only to save his life but also to prepare him for necessary surgery.

2- The enemy has produced the worst wound be could, and its consequences are cumulative, which includes:
   a) Dehydration By unusual fluid less in sweat and vomits.
   b) Continuing haemorrhage or plasma loss.
   c) Pain making rest impossible.
   d) Increasing emotional exhaustion.
   e) Developing infection. Their progress in the wounded man is to be checked in most cases by surgery or by death.

3- Resuscitative measures give temporary stay and make successful surgery possible in shocked wounded soldier.

4- Surgery is not the goal but is itself a part of resuscitation in broad sense, the care of such shocked soldier should be continuous and supervision uninterrupted.

5- That there is a critical period, the wounded soldier undergo which differ from one case to another, and this interval is from the time he is wounded until he had been restored to sufficiently good condition for his wound to be opened and repaired.
   This period is two folds:
   a) Is the commencing time of the actual and correct resuscitation.
   b) Is the proper time and mode of transport.
   For example: a wounded soldier with an internal bleeding that is persisting, there could be no resuscitation without surgery and it is wasteful of both time and blood to attempt to raise the patient's blood pressure before transport to operation, surgery with bleeding control is the simplest most effective procedure.

6- The most of the evacuate wounded soldiers have trivial injuries that need little of the first aid and a lot of assurance, but those who have severe injury should

be recognised in a few seconds, and it needs a well trained doctor, to diagnose such cases, especially so in cases of a closed head injury or a closed abdominal or chest injuries, with a temporary compensatory period where immediate professional attendance are necessary, otherwise irreversible shock and death occur.

7- That multiple closed injuries of the limb bones can lead to death either from circulatory failure and/or from neurogenic shock.
8- That a soldier with an obvious severe injury to a limb, might have another hidden injury, which could lead to sudden deterioration of state or even death.
9- That free airway passage should be ensured in every wounded soldier.

The functions of these stations are to revive the wounded soldiers while other back stations e.g. division clearing stations and base hospital have the function of review and repair.

To revive the wounded soldier is to:

a) Recognise the severity of injury.
b) Immediate attendance and commence of actual resuscitation.
c) Rapid evacuation and proper mode of transport.
d) Fill the special injury card with the proper information.

The doctor professional activities at these two stations should be limited to what is absolutely essential and should emphasise that there are cases nothing is needed more than simple inspection, with the main object of treatment to make the wounded man transportable.

Actual Procedures:

1- Pain is a cardinal symptom of the wouded man,if he is conscious, or it maybe the cause behind his unconsciousness,relieving pain in a man with multiple Fractures or a crushed limb or even in an opened wound of abdomen, will decrease neurogenic shock or abolish it.

Morphia or Pethidine should be given by intravenous route. The route is important for obvious reason. Contraindications of Morhia or allied drugs injection should be sorted out and should not be given to patients with obvious dangers of reducing respiratory capacities in which case intravenous Diazopam could be given.

2- Fluids: In wounded soldiers blood is lost, only when loss exceed 10-20% of blood hypovolemic shock might ensure, the extent of the circulatory failure depend not only on the amount lost but on rapidity of the blood loss too. The best replacement is the blood which is not available at these stations and one should commence with glucose of glucose saline or lactated fluids by intravenous route, to be followed later by plasma or plasma substitutes if time permit.
3- Dressing: Closed injury does not need any form of dressing. Closed injury of bones of limbs mostly need splinting best by plaster of Paris which is not that easy to do in such stations, cramer wire splint might do, or any hard cotton covered board might do. One should not play too much severe wound laceration in a limb, even if it is dirty, being careful not to dislodge a plug of a deep artery or a big vein cut . The best thing to do is to apply a sterile dressing directly on the wound.

It is becoming well appreciated that tourniquet applied distal or proximal to the site of the deep wound with the aim to stop bleeding from a vein or any

artery respectively is not practical and may induce more damage than benefit. A tourniquet is permitted to apply proximal to the wound only when severely crushed limb is present and was embedded under a wreckage for hours, such tourniquet might be life saving.

4- Drugs: When wounds are present a boosting does of toxic toxin in those with active immunisation against tetanus or a shot of antitoxins in others. A cover antibiotic dose is also given.
   Aramine or Noradrenaline are only given when enough circulatory fluid is present in the wounded soldier.
5- Transportation: Evacuation of the wounded solider after first aid treatment has been done is imperative during which resuscitation is continued i.e. while transport is in action.
   The wounded is transported to the nearest medical centre. It should be done with the fastest and safest available route.
   Also should be done while the wounded soldier is in the proper position, in cases with head injury best position is to keep the head in upright position and ensuring free airways, the same is applied with facial injuries.
   In abdominal injuries the wounded is put flat on a stretcher, a sucker should be ready in cases of chest injuries.
   Thomas splint should be applied to a limb when there is fracture. In cases of spinal injury, the wounded soldier should be transferred in a prone position, hyperextension should not be done.
   The wounded soldier should be protected from cold by blankets.

Conclusion:

The professional activities at a doctor level in first aid and holding stations are discussed. The aim is to revive the wounded soldier by immediate recognition of the case who have severe injury, so that to commence resuscitation promptly but never to over do it. Resuscitation should proceed while doing transportation i.e. care of wounded must be continuous and supervision uninterrupted.

Note: 6 slides to shown

Car Acc., MMH., 509c.