Essay on Electric shock

Define Electric shock

Electric shock is a painful stimulation of sensory nerves caused by, Sudden flow of current, Cessation or pause of flow of current, Variation of the current passing through the body.

Causes of Electric Shock

Poorly designed electromedical apparatus, Improper insulation of equipment, Mishandling of apparatus, Improper guidance to the patient, Lack of proper safety measures

Severity of Electric Shock

In accordance with the Ohm's Law, resistance is inversely proportional to current. The greater the current passing through the body the more severe is the shock.

Types of Electric Shock

According to the severity of the shock,

Minor electric shock: after the shock the person may be frightened or distressed but does not loss consciousness.

Major or severe electric shock: the person may be unconscious and reduction in the blood pressure, in extreme cases cessation of respiration, followed by ventricular fibrillations and cardiac arrest. These could be diagnosed by seeing absence of pulse in the carotid artery and with fully dilated pupils.

Treatment of Electric Shock

The victim to be disconnected from the source of supply by switched off. If there is no switch in the circuit, the victim must be removed from contact with the conductor, but rescuer must take care not to receive a shock himself from touching the affected person, contact with whom should be made only through a thick layer of insulating material.

Following a minor shock, the patient is to be reassured that everything is alright and allowed to rest. Water may be given to drink, but hot drinks should be avoided as they may cause vasodilatation, Tight clothing should be loosened and plenty of air allowed.

If respiration has ceased, the airway must be cleared and artificial respiration is to be commenced immediately by the mouth to mouth or mouth to nose method.

Cardiopulmonary resuscitation may also be given, Oxygen therapy may also be administered if required, Patient must be shifted to the hospital immediately.

Precautions to avoid electric shock

1. All apparatus should be tested before use.
2. Connections to be checked before application.
3. Controls should be checked to ensure that they are at zero before switching on.
4. Adequate warming up time should be allowed.
5. The current intensity should be increased with care.
6. Patients should never be allowed to touch electrical equipment.
7. All apparatus should be serviced regularly by a competent person.
8. Machine should be properly insulated.
9. Mishandling of apparatus by unqualified person should be avoided.
10. All SOP should be taken before application to the patient.