CHAPTER 13

POISONING, BITES AND STINGS

Poison enters the human body through absorption through the skin, ingestion, inhalation and injection. Poisoning is a common problem and is either accidental or deliberate.

ACCIDENTAL POISONING

Accidental poisoning can occur at any age but children are nearly always victims of accidental poisoning.

DELIBERATE POISONING

While deliberate poisoning is most commonly associated with murder by far the most frequent cause of deliberate poisoning is attempted suicide and substance abuse.

ABSORBED POISON

Poisons such as insecticides can be absorbed through the skin. The treatment should be based on the History and anyone exposed to a poison capable of being absorbed into the body must be sent to hospital. The effects of some of these poisons are very dramatic and can be life threatening.

PROVISIONAL DIAGNOSIS OF ABSORBED POISONING

<table>
<thead>
<tr>
<th>HISTORY</th>
<th>a. Story of contact with specific poison</th>
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<tr>
<th>SIGNS</th>
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<td>c. Muscle tremor and twitching</td>
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<td>c. Loss of consciousness</td>
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TREATMENT OF ABSORBED POISON

1. Danger - Keep away from the poison
2. Wash casualty down with copious amounts of water
3. Use dish-washing liquid to wash casualty
4. Avoid contamination from the water run off
5. Have casualty strip all clothing off
6. Call for ambulance
7. Maintain airway, breathing and casualty’s perfusion status
8. Only touch casualty or their clothing using heavy rubber gloves
9. Put casualty’s clothing into plastic bag and send with them to hospital
10. Observe casualty closely
INGESTED POISON

Ingested poisoning is a common cause of poisoning and must be treated seriously. In all cases casualties who have drunk or eaten a poisonous substance must be sent to hospital.

PROVISIONAL DIAGNOSIS OF INGESTED POISONING

HISTORY
a. Story of having taken the poison
b. Child who has had access to a poison

SIGNS
a. There are many Signs associated with poisoning

SYMPTOMS
a. Disorientation
b. Confusion
c. Loss of consciousness

Fig. 9-1: Medication is a common agent in poisoning

TREATMENT OF INGESTED POISON

1. Danger, response, airway, breathing, compression, defibrillation
2. Attempt to identify the poison
3. Do not make casualty vomit
4. Call ambulance or take casualty to hospital
5. Keep any vomit
6. Observe casualty closely
7. Do not contaminate yourself

INHALED POISONS

Inhaled poisons represent a major threat to life and great care should be exercised in attempting to rescue the casualty. Remember you cannot carry or drag a heavy casualty and hold your breath. The best option is to wait for the emergency services and leave the rescue to them.

PROVISIONAL DIAGNOSIS OF INHALED POISONING

HISTORY
a. Story of contact with specific poison

SIGNS
a. Altered conscious state
b. Possible poor perfusion - possible cyanosis
c. With Carbon monoxide poisoning the skin is bright red and warm
d. Fitting and cardiac or respiratory arrest

SYMPTOMS
a. Disorientation
b. Confusion
c. Loss of consciousness
**TREATMENT OF INHALED POISONING**

1. Danger - wait for professional help before attempting rescue  
   - do not take unnecessary risks
2. Get yourself and casualty to an adequately ventilated area  
   - up-wind of the poison source
3. Response, Airway, Breathing, Compression and Defibrillation
4. Call ambulance and fire brigade

**INJECTED POISON**

The most frequent causes of poisoning through injection are substance abuse and envenomation by insect or animal bite. The most frequent cause of poisoning in drug abuse is heroin and it presents as follows.

**PROVISIONAL DIAGNOSIS OF INJECTED POISONING**

**HISTORY**

a. Story of contact with specific poison

**SIGNS**

a. Altered conscious state  
b. Possible poor perfusion - Cyanosis  
c. Weakening respiratory effort  
d. Pinpoint pupils from heroin  
e. Respiratory and cardiac arrest

**SYMPTOMS**

a. Disorientation and euphoria  
b. Confusion  
c. Loss of consciousness

**TREATMENT OF INJECTED POISON (DRUG OVERDOSE)**

1. Danger
2. Airway, Breathing, Compression and Defibrillation
3. Call ambulance
ANIMAL OR INSECT BITE

The majority of animal and insect bites do not cause serious illness. However, where a bite causes tissue damage and bleeding then a medical practitioner should be consulted and tetanus immunisation should also be checked. In Australia there are a number of poisonous animals including snakes, spiders, fish and marine life which do poison humans. These animals vary from region to region, so you should ensure that you know which animals pose a threat in your area and at what times of the year they are most dangerous. However, treatment of dangerous bites is simple.

PROVISIONAL DIAGNOSIS OF SNAKE OR SPIDER BITE

HISTORY
a. Story of contact with the animal

SIGNS
a. Altered conscious state
b. Possible poor perfusion
c. Muscle tremor and twitching
d. Excessive salivation
e. Fitting

SYMPTOMS
a. Disorientation
b. Confusion
c. Loss of consciousness
d. Pain in limb moving towards trunk

TREATMENT OF BITES FROM SNAKES, FUNNEL WEB SPIDERS, CONE FISH, BLUE RINGED OCTOPUS

1. Danger - ensure that the angry animal has departed the scene and be careful
2. Airway, Breathing, Compression and Defibrillation
3. Rest and reassure casualty
4. Immediately call ambulance
5. Cut all clothing from affected limb or area
6. Apply a dressing to bite
7. Do not wash wound
8. If bite on a limb apply compression bandage
   - apply compression to bite
   - then from fingers or toes all the way to the armpit or crotch
9. The bandage should be firm but not over-tight
10. Observe the casualty closely

Bandage from the bite to the fingers and then the whole way up to the arm.

Fig. 9-2: Treatment of snake bite
TREATMENT OF BITES FROM RED BACK SPIDERS

1. Danger
2. Rest and reassure casualty
3. Apply cold compress to bite site
4. Immobilise limb and seek medical assistance

TREATMENT OF JELLYFISH STINGS

1. Danger
2. Airway, Breathing, Compression and Defibrillation
3. Get casualty onto beach or boat
4. Rest and reassure
5. Immediately call ambulance
6. Cut all clothing from affected limb or area
7. Gently remove individual stings with tweezers
8. Wash wounds with vinegar if available
9. Do not rub sting
10. Observe the casualty closely

TREATMENT OF STINGS FROM BEE, WASP, SCORPION OR CENTIPEDE

These bites can be painful and uncomfortable but are rarely dangerous unless the casualty is allergic to the particular bite. If there is a serious allergic response following a bite treat as for anaphylactic shock.

1. Danger
2. Check airway, breathing and casualty’s perfusion status
3. Rest and Reassure
4. Remove obvious sting and clean skin
5. If required apply a little ice to stung area
6. Observe casualty

PROVISIONAL DIAGNOSIS OF TICK BITE

HISTORY

1. Playing or working in scrub or bush on east coast of Australia

SIGNS

1. Altered conscious state
2. Possible poor perfusion
3. Muscle tremor and twitching

SYMPTOMS

1. Disorientation
2. Confusion
3. Loss of consciousness
4. Weakness

TREATMENT OF TICK BITES

1. Danger, airway, breathing and casualty’s perfusion status
2. Check casualty’s body including hair, armpits, groin, anus and all skin folds
3. Kill tick using methylated spirit
4. Remove tick, ensuring that the head parts are removed
5. Clean skin and if required apply a little ice to stung area
ANAPHYLAXIS

Anaphylaxis is a hyper-allergenic response to the introduction of an antigen into a casualty’s body. The most common antigens include shell fish, bee stings, peanuts and some food colourings. The Signs and Symptoms of anaphylaxis may range from a stuffy nose to acute respiratory and circulatory collapse and sudden death. Most people who are at risk of anaphylactic reactions are aware of the risk and may have access to medication to be taken in an emergency.

PROVISIONAL DIAGNOSIS OF ANAPHYLACTIC REACTION

HISTORY
a. Previous attacks have occurred
b. Story of exposure to antigen

SIGNS
a. Altered conscious state
b. Poor perfusion
c. Blotchy rash to face and body
d. Runny nose and eyes
e. Blisters
f. Fitting
g. Bronchospasm and wheezing
h. Vomiting and diarrhoea

SYMPTOMS
a. Disorientation
b. Confusion
c. Loss of consciousness

TREATMENT OF ANAPHYLACTIC REACTION

1. Danger
2. Airway, Breathing, Compression and Defibrillation
3. Get ambulance immediately
4. Rest and reassure
5. If the casualty has medication help them administer it immediately
6. Be prepared to commence Assisted Ventilation and CPR
7. Observe the casualty closely