Poisoning: An Overview For Healthcare professional

PART I
HOUSEHOLD POISONING

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INTRODUCTION TO TOXICOLOGY

Definition of Toxicology

- Previous: the basic science of poisons
- Recent: the study of the adverse effects of chemical agents on biological systems
Poisoning Statistics 1998
- 79,366 cases, 32 poison control centres
- Human poisoning 85.7%
  - 79% accidental
  - 21% suicide
  - 43%: children <5 years
- Suicide
  - 261 deaths
- Accidents
  - 110 deaths
- National Poisoning Information System
Accidental
The Ten Most Common Poisonings

- Cleaning Products
- Analgesics
- Cosmetics
- Plants
- Cough And Cold Meds
- Hydrocarbons
- Bites
- Topicals
- Foreign Bodies
- Chemicals

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Time is very critical

Suspect overdose / poisoning in any patient with

- altered level of consciousness
- unexplained signs & symptoms
CLINICAL COURSE

- Non-toxic ingestion

- Acute toxicity: Acute poisoning accounts for 10-20% of hospital admission for general medicine

- Delayed toxicity
Household products:

- Household products contain:
- Enormous variety:
  - toxic
  - nontoxic chemicals
- Used for human-life needs
- Not medications
- Too often stored within easy reach
Causes of household poisoning:

- Children <5 years
- Accidental.
- Unlocked containers.
- Change in the original:
  - place
  - container
- Storing household products next to food.
- Leaving kids alone.
Factors affecting rate of poisoning:

- Factors which raise toxicity:
  - Liquid.
  - Pellets.
  - Pleasant flavor.
  - Large volume.
  - Low viscosity. (petroleum products).
  - Method of dispensing or packaging.
Factors affecting rate of poisoning….cont.:

- Factors which lower toxicity.
  - Solid or semi-solid.
  - Powdered (unless caustic).
  - Unpleasant flavor.
  - Small volume.
  - High viscosity.
  - Method of dispensing or packaging.
Classification:

- Rat poison.
- Insecticides.
- Pesticides.
- Mothballs.
Classification...CONT.

- Button batteries.
- Cosmetics.
- Jewelry cleaner.
- Perfume.
Classification...CONT.

- Oven cleaners.
- Rust removers.
- Drain cleaners.
- Detergents.
- Ammonia.
Classification...CONT.

- Pesticides.
- Paints.
- Gasoline.
- Turpentine.
- Paint removers.
- Paint thinner.
- Fertilizers.
- Anti-freeze (EG).
Signs and symptoms

- Nausea, vomiting, and diarrhea.
- Severe abdominal pain and cramps.
- Slowed respiration and circulation.
- Excessive salivation and sweating.
- Corrosive poisons (strong acids or alkalis) may corrode, burn, or destroy the tissue of the mouth, throat, and stomach.
Signs and symptoms…cont..

- Contents of a drug bottle spilled out.
- Liquids such as kerosene or turpentine may leave characteristic odors on the breath.
- Certain poison may stain mouth.
- Unconsciousness.
- Convulsions.
Patient assessment:

- Observe the patient’s skin color.
- Smell the patient’s breath.
- Assess level of consciousness.
- Assess pupillary reaction.
- Assess respiration.
- Assess condition of mouth and lips and appearance of vomiting contents and diarrhea.
TREATMENT

- Don't induce vomiting if:
  - Unconscious.
  - Seizures.
  - Petroleum.
  - Corrosives.
TREATMENT:

- Drain cleaners, lye.
- Toilet bowel cleaners.
- Detergents, bleaches.
- Oven cleaners.
- Rust cleaners.
- Ammonia.
- Fertilizers.
- Room deodorizers.
- Jewelry cleaners

1. Dilute-water/milk.
2. Esophagoscopy.
TREATMENT ..cont..

- Mothballs.

3. Diazepam.
TREATMENT...CONT.

- Hair products.
- Deodorants.
- Disinfectants.
TREATMENT...CONT.

- Rubbing alcohol..
- Nail polish remover.
- Perfumes.

2. Lab work.
3. Demulcents.
4. Honey+milk.
TREATMENT...CONT.

- Gasoline.
- Paint thinner.
- Paint.
- Turpentine.
- Pine oil.

1. Demulcents.
2. Chest X-ray.
3. O2
TREATMENT...CONT.

- Paint removers.
- Anti-freezes.

2. Lab work.
3. Ethanol therapy.
4. Hemodialysis.
TREATMENT...CONT.

- Creams.
- Bath oil.

Chest X-ray. Supportive tx.
TREATMENT...CONT.

- Rat poison.
- Gut decontam.
- Vitamin K.
Pesticides.

3. Pralidoxime.
4. Atropine.
TREATMENT...CONT.

- Insecticides.

1. O2.
2. Gut decontam.
4. Atropine.
HOW TO HAVE A POISON PROOF PLACE…??

- Use products with safety caps.
- Never call medicine candy.
- Store all drugs and chemicals in their original containers.
- Leave original labels in all products, and read the label before using.
- Store all chemicals in a locked cabinet and out of reach of children.
HOW TO HAVE A POISON PROOF PLACE...??  Cont..

- Never put chemicals in food containers.
- Don’t take the drug in front of your children.
- When these products are in use, never let them out of your sight.
- Always leave the light on when giving or taking medicines.
- Be especially careful when there is stress in the home.
HOW TO HAVE A POISON PROOF PLACE...?? Cont...

- When normal routine is disturbed.
- When visiting other homes.
- Remember small children can’t read warnings.
- Keep phone of poison control center attached to your telephone.
THANK YOU!