PASHUDHANPRAHAREE
पशुधन प्रहरी
RNI No. : JHAHIN/2012/46453
ISSN : 2319-6971 (PRINT)

पशु स्वास्थ्य एवं पशुधन विकास हेतु समर्पित पत्रिका
www.pashudhanpraharee.com

COMMON POISONINGS AND THEIR MANAGEMENT

Poisons	Source of Poisons	Important signs	Treatment
A. Inorganic and Organic Chemicals			
Acids	---	---	• Do not use stomach tube or emetics • Neutralize acid using chalk, magnesium carbonate, solution of sodium bicarb., lime water, oils. • For oxalic acid, use calcium preparations, chalk and lime water.
Alkalis	---	---	Dilute via acids (vinegar), demulcents, eggs, milk, linseed or castor oil.
Antihistamines	---	---	Artificial respiration, respiratory and CNS stimulant; if convulsions, use small doses of barbiturates (IV). Animal should be kept in dark room.
Aspirin	---	---	Emetics, respiratory stimulants and artificial respiration.
Barbiturates	---	---	Emetics, artificial respiration, nikethamide (coramine), strychnine.
Carbon monoxide	Coal gas	Difficult respiration, coma, pale mucous membrane and cherry red colored blood.	• Nikethamide as respiratory analeptic. • Oxygen containing 5% carbon dioxide.
Copper	• Administration of large doses of	**Acute cases**: there is vomiting in dog	• Symptomatic treatment for shock and gastro-intestinal

		Lameness, and recumbency. **Acute**: Convulsions, staggering and tendency to fall. Intermittent blindness, paralysis and coma.	
Lantana *(Lantana camara)*	Feeding of the plant	Sever constipation in early stages, hemorrhagic gastroenteritis, weakness, photosensitization and jaundice.	• Keep the animal in dark place. • Purgative • Glucose saline and liver tonic
Oak *(Quercus spp)*	Feeding the oak plants	Ventral edema, polyuria, abdominal pain and constipation followed by the passage of feces containing mucus and blood.	• Calcium hydroxide (15% of the ration) is an effective antidote. • Liquid paraffin with milk
Sweet Clover *(Melilotus spp.)*	Ingestion of mouldy sweet clover hay which contains dicoumaral).	Extensive hemorrhage in subcutaneous tissue, muscles, anemia and increased clotting time.	• Stop feeding of damaged hay. • Vitamin K, 2000 mg IV
E. Plant byproduct Poisoning			
Soybean Meal	When it is prepared by trichloroethylene extraction	Aplastic anemia, leucopenia and damage to vascular endothelium	As in the Bracken fern poisoning
Linseed Cake	It contains high content of "cyanide".	• Same as in cyanide poisoning. • High incidence of goiter in newborn lamb, if ewe fed large quantity of cake during pregnancy.	Cake can be detoxificated by soaking and then boiling for 10 minute to eliminate the hydrocyanic acid.
Cottonseed Cake	It contains phenolic substances	Damage to the myocardium and liver	Cooking of the cake or addition of 1% calcium hydroxide or 0.1% ferrous sulphate for detoxication.

	copper sulphate, ● Contamination of drinking water or pasture top dressed with copper containing products.	(vomitus contain much mucous and green to blue colour), abdominal pain, diarrhea, collapse and death within 20 hrs. **Chronic cases**: Hemoglobinuria and jaundice.	sedatives ● In affected lambs 100 mg ammonium molybdate and 1 gm sodium sulphate orally for 3 to 5 days.
Cyanides (Hydrocyanic Acid)	● During summer drought immature sorghum is eaten by cattle. ● Eaten the material which is high in cyanide content.	Depression, staggering gait, muscle tremors, opisthotonus and dyspnoea. There may be hyper aesthesia, dilation of pupil, and bloat in recumbency.	● Sheep: 1 gm sodium nitrate and 2.5 gm sodium thiosulphate in 50 ml water IV. ● Cattle: 3 gm sodium nitrate and 15 gm sodium thiosulphate in 200 ml water IV alongwith 30 gm sodium thiosulphate orally at hourly interval. Other treatment includes respiratory stimulants and artificial respiration.
Fluorine	● Ingestion of pasture contaminated with fluorine (top dressing) with phosphate limestone or feeding of phosphate rock supplements). ● Drinking of water from deep wells.	**Acute**: Gastroenteritis, vomiting, dyspnoea. Muscle tremor, pupilary dilation and hyper aesthesia. **Chronic**: Dental lesions, lameness and stiffness with painful gait, pain is evinced on pressure over limb bones.	● Aluminium sulphate: 20 gm orally daily for prevention of chronic fluorosis and larger dose for treatment. ● Calcium salt intravenously.
Nitrate and Nitrites	● Fertilizers contain nitrates. ● Plant raised on high nitrogenous manures. ● Accidental poisoning with sodium or potassium nitrate.	Salivation, abdominal pain, diarrhea and vomiting. Dyspnoea, muscle tremors, staggering gait, cyanosis and convulsions.	Methylene blue 1-2mg/kg body weight IV as 1% solution. Treatment should be repeated when large amount of toxic material has been ingested.
Strychnine/ Nuxvomica	Accidental over dosing with strychnine preparations. Used for killing	Reflex excitement, titanic convulsions, opisthotonus and protrusion of eye balls, Death due to	● Sedation of animal with chlorpromazine hydrochloride or chloral hydrate or barbiturates. ● Tannic acid orally to

	animals with bad intentions.	respiratory arrest.	precipitate the alkaloid.
Sodium chloride	Drinking of saline water	Vomiting, diarrhea, abdominal pain, blindness	Toxic feed and water must be removed immediately. Symptomatic treatment such as gastro-intestinal sedatives and isotonic fluid should be given.
Urea	• Accidental intake of urea. • Feeding of large quantity of urea in feed (feed additive as a cheap protein)	Severe abdominal pain, muscle tremor, incoordination, dyspnoea, bloat and violent struggling and bellowing	• Oral administration of weak acid such as vinegar or 5% acetic acid. • Parenteral administration of calcium and magnesium salts.

B. Anthelmintic Poisoning

Carbon tetra-chloride	Accidental administration into respiratory tract or oral administration of massive dose	Immediate effects are staggering, falling, collapse, convulsions and death due to respiratory failure. If animal survive, there is depression, muscular, weakness, diarrhea and jaundice.	• Artificial respiration and respiratory centre stimulants. • Supportive treatment for hepatitis. • Parenteral administration of calcium solution and glucose solution.
Phenothiazine	Accidental over dosing in animals	• Photosensitization, keratitis, (accumulation of phenothiazine sulphoxide in aqueous humor of eye and produce white opacity of the cornea due to sunrays). • Hemolytic anemia • Abortion, ataxia and paralytic	• Affected animal should be kept in dark place. • Antiseptic eye ointment and 500,000 IU vitamin A orally for prevention of eye infection. • Blood transfusion and fluid therapy
Hexachlorethane	Accidental over dosing for the treatment of fascioliasis	Ataxia, dullness, abdominal pain and diarrhea, in severe cases the signs are identical of milk fever.	• Administration of Calcium borogluconate
C. Insecticides Ingestion			
Chlorinated	• Accidental	Increased	• Saline purgative and

hydrocarbons (such as D.D.T., B.H.C., heptachlor, chlordane)	intake • Spray of dipping to control the ectoparasite. • Consumption of the treated seed by animals.	excitability and irritability, muscular tremor, weakness, paralysis and convulsions.	activated charcoal (about 5 lbs). Avoid oily purgative. • Sodium phenobarbital 5 gm per day. • Atropine sulphate (0.05 mg/kg) IM. • Calcium salt parenterally.
Organophosphate (such as malathione etc.)	• Accidental intake • Spray on the pasture, orchards etc • Spray/dipping of the animal	**Chronic**: Salivation, dyspnoea, diarrhea, stiffness of muscle. **Acute**: Profuse salivation, protrusion of tongue, bloat, collapse and death.	• Atropine sulphate (double dose) 0.25 mg/kg b.wt. 1/3rd IV and remaining IM • Saline purgative • Fluid therapy • Chloral hydrate or phenobarbitone inj
D. Poisonous Plants			
Aflatoxicosis (toxin of aspergillus spp.)	Intake of contaminated groundnuts and sorghum grain and corn etc.	Hepatic insufficiency, blindness, walking in circles, frequent falling, teeth grinding, diarrhea with blood and mucus, severe tenesmus, finally convulsion and abortion in pregnant animals.	• Symptomatic treatment. • Infected grain, if given to the animal should be treated with ammonia.
Bracken fern *(Pteridium aquilina)*	Ingestion of bracken fern	Loss of condition, dryness and slackness of the skin, high fever, drooling of saliva, bleeding from the nose, eyes and vagina. Hematuria, petechial haemorrhage on udder mucosa and skin. Edema of throat region and dyspnoea.	• Butyl alcohol (bone marrow stimulant) 1.0 gm in combination with antibiotics IV or SC. Thiamine hydrochloride.
Ergot *(Claviceps purpurea* – Ergot of rye)	Ingestion of fodder and grain infested with ergot	**Chronic**: Dry gangrene of the extremities of limbs, tail and ear.	No treatment Except: • Infested grain should be with drawn • Vasodilator drugs be used