

COURSE SHEET: CHOCOLATE POISONING

Definition

Chocolate poisoning is a veterinary emergency caused by theobromine and caffeine, methylxanthines that are toxic to dogs, cats, and other animals



Pathophysiology

Theobromine and caffeine are poorly metabolized by animals, leading to accumulation

Main effects: CNS stimulation, increased heart rate, diuretic and gastrointestinal effects

Epidemiology

- **Frequency:** Common in dogs, rare in cats (less attracted to chocolate).
- **Susceptible species:** Dog > Cat > Other animals.
- **Risk factors:** Small size, brachycephalic breeds, cardiac or epileptic animals.
- **Toxic dose:**
 - **Dogs:** 20 mg/kg (mild signs), 40 mg/kg (severe signs), 60 mg/kg (potentially lethal).
 - **Cats:** Less documented, but similar toxicity.



Clinical Signs

1. **Early phase (0-6h):** Vomiting, diarrhea, hyperactivity, polydipsia.
2. **Advanced phase (6-12h):** Tachycardia, arrhythmias, tremors, hyperthermia, hypertension.
3. **Critical phase (12-24h):** Seizures, coma, heart failure, death

Diagnosis



- **History** (confirmed ingestion by owner).
- **Blood tests:** metabolic acidosis, hyperglycemia.
- **ECG:** cardiac arrhythmias.
- **Methylxanthine measurement** (rarely available in practice).



Treatment



- **Decontamination (if <2h after ingestion) :**
 - **Induced vomiting** (apomorphine in dogs, xylazine in cats).
 - **Activated charcoal** (reduces absorption)
- **Symptomatic treatment :**
 - **IV fluids** (enhanced renal elimination).
 - **Beta-blockers** for tachycardia.
 - **Diazepam / phenobarbital** for seizures
- **Intensive care :** Cardiac monitoring, hospitalization if high doses ingested.

Prognosis & Life Expectancy

- **Good prognosis** if treated early.
- **Guarded to poor prognosis** if prolonged seizures or multi-organ failure occur

