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Title of Thesis: Studies on experimental Ohi (Albizia stipulate) toxicosis in calves.

Abstract

Clinico-biochemical and pathological alterations were studied on six month old male calves fed on fresh leaves of Ohi (Albizia stipulate) @ 52.23g/kg. b. wt. Symptoms of toxicosis like dullness and depression were noted by 12 h, followed by suspended rumination, decreased water intake, atony of rumen and inappetence by 24h. By 72-96h, watery nasal discharge, grinding of teeth, grunting, loose mucoid faeces, dry muzzle and decreased weight bearing by limbs were seen. One third of the calves exhibited swaying of body, muscular stiffness and intermittent tremors. Assumption of sternal decumbency, then lateral recumbency and diminished eye reflexes were seen by 120h.

Complete absence of rumen protozoal motility and significant decrease in protozoal count were noted by 24h.

Haematologically, significant increase in mean PCV values, marginal increase in Hb and TEC, relative neutrophilia and lymphopenia were observed. A significant increase in plasma ALT and mild rise in plasma AST indicated hepatic damage. There was marginal increase in blood glucose, plasma total protein and bilirubin.
Histopathologically, degeneration, ulceration and necrosis of the rumen mucosa, congestion and denudation of intestinal mucosa, hydropic degeneration in liver, congestion leading to mild atrophy of hepatocytes, generalized congestion and focal hemorrhages in kidneys along with swelling and desquamation of tubular epithelium, and generalized lymphoid depletion in spleen and various lymph nodes were observed.

Therapeutic management with saline purgatives, liver extract, rumenotorics, dextrose saline 5% and rumen cud proved 80 per cent effective in Ohi toxicosis.