

STUDIES ON SOME ASPECTS OF EQUINE COLIC WITH REFERENCE TO EVALUATION OF ANALGESICS

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Topical and intravenous amitraz was used for experimental induction of impaction colic in indigenous donkeys. Intravenous amitraz at the rate of 4.0 mg/kg b.wt. could produce impaction colic characterized by anorexia, anxiety, absence of defaecation, absence of borborygmi, restlessness, frequent lying and getting up, intermittent rolling and occasional pawing. Pulse and respiration rates were elevated. However, temperature remained within normal limits. Capillary refill time was significantly increased only at maximum severity of colic with normal oral gingival mucosa colour.

Haemoconcentration and mild dehydration were evident at severity of the colic indicated by increase in haematocrit, haemoglobin, total erythrocyte count, total serum proteins, blood urea nitrogen and skin tenting time. Blood lactate and blood glucose levels were also elevated. Serum electrolytes concentrations revealed low chloride, low normal sodium and normal potassium and calcium levels.

Xylazine provided immediate consistent analgesia of 42.5 min duration with facilitation of rectal examination. However, phenylbutazone required longer time (85 min) to induce the analgesic effect and analgesia produced by phenylbutazone was of poor nature. Xylazine caused more marked reduction in increased pulse and respiration rates, due to colic pain, as compared to phenylbutazone.

Necropsy revealed distended caecum and colon. Colon wall was congested with necrosed patches on it. Microscopic lesions were mainly confined to gastrointestinal tract with necrosis of epithelial mucosa and oedema of submucosa of colon. Liver, kidney and spleen showed only degenerative changes.

