

USE OF LOPERAMIDE IN RABBITS EXHIBITING INAPPETANCE/ANOREXIA AND SUBNORMAL BODY TEMPERATURE

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Abstract - Twenty four cases of rabbits exhibiting clinical signs of anorexia or inappetance, and subnormal body temperature (average of 36.9 degrees centigrade) which were treated with loperamide were studied. The average recovery time was 2.2 days.

INTRODUCTION

24 cases of rabbits presented with various clinical signs including anorexia, inappetance, subnormal body temperature, abdominal enlargement, and decreased stool production were documented to show the results of treatment with loperamide. Loperamide is a butyramide derivative which affects gastrointestinal opiate receptors and mucosal ion transport (HUGHES *et al.*, 1982). The resulting effects have been shown to benefit rabbits which have diarrhea by affecting gut motility and also due to an antisecretory effect caused by bacterial toxins (BANERJEE *et al.*, 1987). The exact nature of how loperamide functions in the anorexic rabbit is at this point unknown. The reason that this medication was selected was due to the observations of several rabbits autopsied at the time of death who had exhibited the same clinical signs. Results of the post mortems revealed intestinal ileus usually with an incomplete small intestinal obstruction most often composed of hair. It was empirically determined that these rabbits were dying from the sequelae of gastrointestinal ileus especially endotoxemia and fatal endotoxic shock. It became evident that a motility modifying drug such as loperamide may be effective in preventing death.

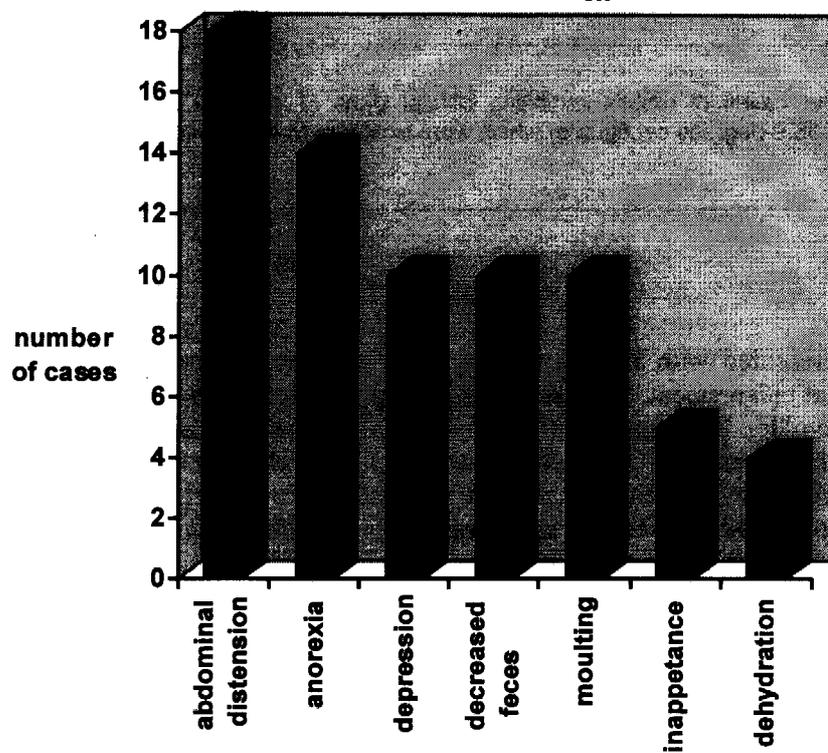
MATERIAL AND METHODS

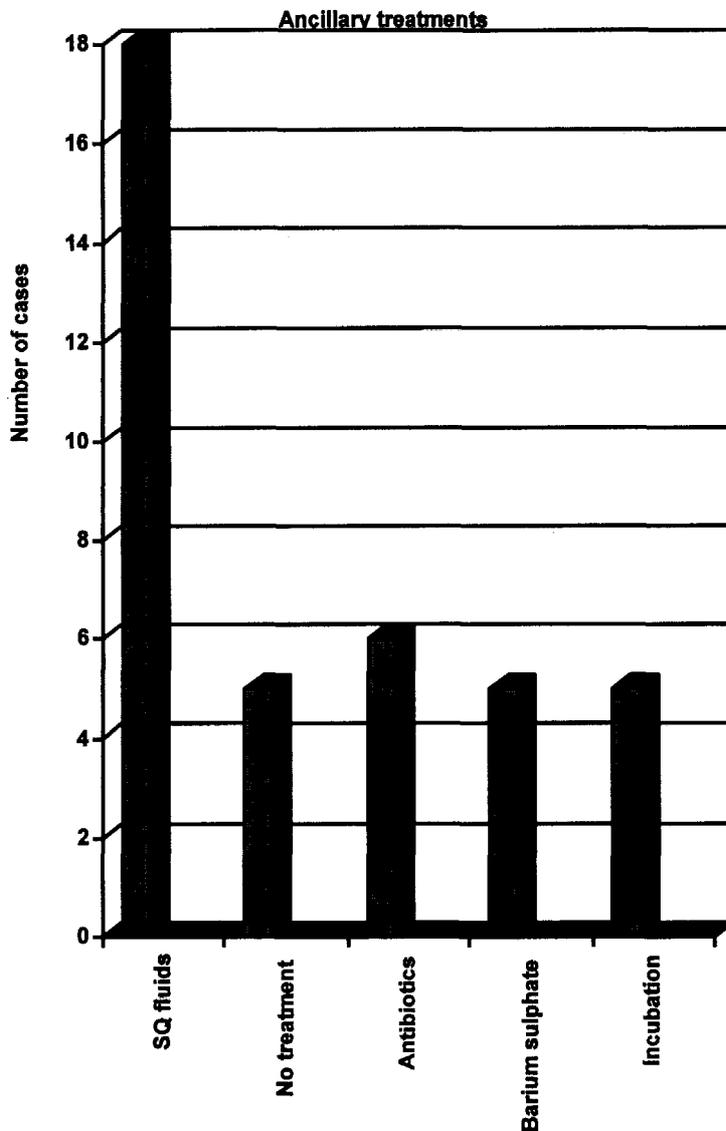
Data was collected from medical records during a four year period (1991-1995) from case studies which exhibited the above clinical signs and were treated with loperamide. A control group was not utilized as the objective was to bring each case back to a stable condition without risking loss of the patient. Clinical signs were obtained during a standard physical examination and body temperature was assessed via rectal thermometer. Ancillary treatments consisted of subcutaneous sodium chloride injection, antibiotic administration, incubation, barium sulphate per os (for diagnostic radiology), in one case intraperitoneal dextrose (for suspected hypoglycemia), and in another case Petrolatum based cat-laxative. The frequency of these treatments is shown in chart 2. The recovery time was defined as the number of days to reach a body temperature above 38.0 degrees centigrade, begin eating, and passing normal feces.

RESULTS

The clinical signs were relatively consistent throughout all case presentations. Chart 1 displays the frequency of occurrence of each sign observed.

Clinical Signs ch





From the data collected the average dose of loperamide administered was 0.15-0.20 mg/kg every 6 to 12 hours. The higher dose was used more frequently in cases which were severe (ie. severe depression, complete anorexia, extreme abdominal distension, and lowest body temperatures). The average recovery time was 2.2 days.

DISCUSSION

This case study concurs with previous studies involving loperamide on the motility of the rabbit gastrointestinal tract. There remain to be areas which require further study. An experiment involving a control group would be required to properly document the effect of loperamide in anorexic rabbits. More investigation is needed in the actual pathophysiology of this condition.

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