

Retrospective Study of 'Jejunal Hemorrhage Syndrome': 66 Cases (1999 – 2008)

G. Rademacher, *Dr. med. vet.*¹; **I. Lorenz**, *Dr. med. vet., Dr. med. vet. habil. Dipl. ECBHM*²;

T. Hänichen, *Dr. med. vet.*³; **W. Klee**, *Dr. med. vet. Dr. med. vet. habil. Dipl. ECBHM*¹

¹*Clinic for Ruminants, University of Munich, Oberschleissheim, Germany*

²*UCD School of Agriculture, Food Science & Veterinary Medicine, Dublin, Ireland*

³*Institute of Animal Pathology, University of Munich, Munich, Germany*

Introduction

A disorder of adult cattle usually referred to as 'jejunal hemorrhage syndrome' has received an increasing amount of attention during the last decade. The frequency of this condition among patients of our clinic has increased. The disease is now the most frequent cause of small intestinal ileus. Therefore, a description of the clinical findings, surgical procedures, and outcomes seemed indicated, especially since the prognosis has been described as poor in the literature.

Materials and Methods

The records of patients with jejunal obstruction due to blood coagula, admitted to our clinic between 1999 and today, were retrieved from the archive and evaluated.

Results

A total of 66 cases was identified, occurring sporadically in cattle between 2.5 and 8 years of age which were in various stages of production. The clinical picture was relatively uniform: sudden inappetence, and abrupt decline of milk yield, colic, saw-horse stance, distension of the abdomen (especially on the right ventral aspect); diffuse splashing sounds, but no ping, could be elicited on the right side; feces were mostly dark red and sticky. Surgical findings included increase in the amount of

peritoneal fluid, impaction and dark discoloration of a segment of the jejunum, about 10 to 30 cm in length, distension of the proximal parts of the small intestine. Intervention: The affected part of the jejunum was not opened, but the coagulum was broken down by gentle massage of the intestinal wall and moved distally. Post-operative course: Sodium sulfate in a dosage of 1 g/kg BW was administered in 10 L of water by gastric tube, followed by an IV continuous drip infusion over 2 - 3 days. Outcomes: 33 animals were discharged, 25 were euthanized either during the operation or during the first few days post operatively, and 8 died. The 95% CI for discharge was .37 - .63. Pathologic examination in non-survivors revealed circumscribed ulcerations in the jejunum, to which the coagula were attached.

Significance

Veterinarians should become acquainted with this condition, as it warrents an early decision. The prognosis is not as grave as indicated in some reports (e.g. Abutarbush & Radostits, 2005; Muskens et al., 2007) Clostridial infection and/or intoxication has been implicated as the cause of this disorder. However, an attempt to reproduce it experimentally with toxigenic *Cl. perfringens* failed (Ewoldt & Anderson, 2005). It is difficult to imagine a very localized effect of clostridial toxins. Rapid proliferation of clostridia at the site of hemorrhage seems at least as likely.