HEMORRHAGIC BOWEL SYNDROME IN DAIRY CATTLE: THREE CASES IN SARDINIA (ITALY)

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Introduction: Hemorrhagic Bowel Syndrome (HBS) is a sporadic, highly fatal disorder of adult dairy cattle. Affected animals develop large intraluminal blood clots that result in obstruction of single or multiple segments of small intestine. HBS could be defined as a multi-factorial syndrome. Clostridium perfringens type A seems to play an important role in the pathogenesis of this syndrome.

Objective: report signalment, history and clinical, necropsy and microbiologic findings in 3 cows with HBS.

Material and methods: 1 Holstein Friesian cow (n=1) and 2 adult lactating Brown Swiss cows (n=2, n=3) were admitted to Department of Pathology and Veterinary Clinic. They were submitted to clinical examination, laboratory tests, medical and surgical treatment, necropsy and microbiological tests.

Results and discussion: common clinical signs were depression, sudden and complete anorexia, severe drop in milk production, rapid onset of progressive shock, colic and progressive abdominal distension, intestinal obstruction with melena and/or clotted blood in the feces.

Cow 1 was slaughtered prior to any treatment;

cow 2 was euthanized during surgery because of jejunal perforation with diffuse peritonitis; cow 3 was submitted to enterotomy and removal of obstructing blood clots.

It was euthanized within 4 days after surgery because of lack of fecal output, increasing abdominal distension and recumbency.

Post mortem examination on cow 2 and 3 was performed immediately after death. At necropsy, common findings were a dark purple-red distended jejunum with an intraluminal blood clot tightly adherent to the mucosa, distended loops of bowel and fibrinous peritonitis.

Hemorrhagic bowel syndrome was diagnosed on the basis of history, clinical signs, surgical observations, post-mortem findings and isolation of Clostridium perfringens type A from the affected tissue.

Conclusion: Ethiology, pathogenesis and role of potential risk factors are unclear at present and remain somewhat subjective. This study confirms the role of stress, increased milk production and higher soluble carbohydrate feeding rates as potential contributory factors in HBS onset. The severity and duration of the syndrome makes it difficult to treat medically and surgically, therefore searching for a preventive strategy could be more helpful in this setting. It is hopeful that with a great awareness and better recognition of this syndrome, methods will be found to treat and prevent this condition.

Keywords: Cattle, jejunal hemorrhage syndrome, hemorrhagic bowel syndrome, clostridium perfringens