

「CASE REPORT」

Uremia in slaughtered cattle

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(Received 25 May 2007, accepted in revised form 15 June 2007)

Abstract

Uremia was diagnosed in a slaughtered 20-month old bull. It had no special clinical signs, but many lesions associated with uremia were observed at postmortem inspection. It had a lot of ascites. Kidney, urinary bladder and ureter were enlarged, congested and hemorrhagic, and the incised section of those slightly smelled nasty. However, the precise cause of uremia in this case could not be completely identified.

Key words : Uremia, Kidney, Urinary bladder, Bull

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Introduction

Azotemia means that the level of last metabolic nitrogenous materials of protein or aminoacid are higher than normal blood concentration. Clinical signs such as lethargy, depression, anorexia, vomiting can be caused by uremia, because renal failure and symptoms could be related to clinical signs. Uremia is also caused by calculus, nephritis, poisoning, etc.¹⁾

Gross lesions of uremia may be single

or combined in affected animals. The lesions of kidney appear diversely depending on the type of renal distress and chronic degrees. Wasting and Cachexia resulted from anorexia, protein loss, and toxins. Ulcerative stomatitis is generally seen on the bottom and edge of the tongue. Uremic animals can have anemia due to decreased erythropoietin production and increased erythrocyte fragility. Also, gastric mucosa may be reddened, hemorrhagic, and sometimes ulcerated. Stomatitis leads to vomiting, anorexia, and

hemorrhage with ammoniac odor contents in gastrointestinal tract. Anasarca with glomerular disease occurs because continuous protein loss causes hypoproteinemia leading to osmotic imbalances and fluid loss into tissue.^{1,2)}

Symptoms

20-month old of bull with no signs



Fig 1. Mild peritonitis was observed



Fig 2. Hemorrhagic and enlarged kidney was found



Fig 3. Urinary bladder was enlarged



Fig 4. Inside of enlarged and necrotized ureter, hemorrhage was observed

Discussion

Urine is created for the purpose of elimination of metabolic wastes in kidney. It is involved in salt balance and acid-base

regulation. Some substances such as erythropoietin, renin, vitamin D₃ are produced in kidney¹⁾. Blood pass through kidney, and then, circulate into other organs and tissues.

Consequently, pathological lesion of kidney is an important indicator of a disease or defect of other organs and tissues, because pathogen or toxin that affect renal failure can exist in other organs and tissues. In this case, judging from appearance of ascites and smell of the meat, the bull has been uremia, due to renal failure for a long time. However, the precise cause of uremia could not be determined throughly by these conditions.

References

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