Prevention and treatment of bovine rumen retardation

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Abstract: Bovine rumen retardation is a common disease in cattle, mainly because cows feed heavily or mildew in the autumn winter, or suddenly change feed, and too little cattle exerciseafter the cattle rumen movement slowed down or even stopped, resulting in food can not be normal digestion and excretion, fermentation after the production of harmful substances, the final provision of cattle industry caused losses. This paper analyzes the causes, clinical manifestations and pathological changes of the disease, and discusses the treatment and prevention measures for different degrees and different types of bovine rumen retardation. The aim is to provide references for the prevention and treatment of the disease in the aquaculture.

Keywords: bovine rumen retardation;

| Middle | Figure | category | Number:S853.23Document identification code:Article number:2096-3637(2017)12-0054-02 |

In recent years, the rapid development of cattle industry in China, although large scale factory-raised there are more and more cattle farms in the, but family free-range cattle still account for a large proportion. Unlike cattle breeding, family-free range cattle do not have strict control of feed, feeding methods do not have scientific. Therefore, there are often some bovine digestive diseases, in which the rumen retardation is a common disease of cattle, the provision of cattle industry caused significant economic losses. Bovine rumen retardation often occurs in the autumn and winter cold season, all kinds of reasons cause the rumen of the muscle and nerve function disorder, so that the rumen excitability reduced, food can not be normal fermentation and digestion, accumulation of harmful substances after corruption, resulting in the whole body can be both obstacles and dysfunction. In this paper, the pathogenesis of bovine rumen retardation was analyzed, the clinical manifestations were analyzed, and the method to prevent and cure bovine rumen retardation was put forward, the aim of this paper is to help the development of cattle industry.

1. cause of illness

The pathogenesis of rumen retardation in dairy cows can be divided into primary rumen retardation and secondary rumen retardation.

1.1 Primary rumen retardation

1.1.1 feed simple, inferior, metamorphic feed grass too harsh, soft, too simple, too much fiber, nutrition into the

Feed grass is not clean, mixed with silt, grass feed is scarce, feeding wild weeds, small miscellaneous branches and so on, feed the mold, metamorphism, frost, accumulate ferment can cause the rumen dysfunction. In addition, moldy and corrupt green storage feed or grass can greatly damage the normal digestion and metabolism of beef cattle before the stomach.

1.1.2 improper feeding and management feeding is not in accordance with the "four-set" policy, feeding irregular, fixed quality, quantitative,
Fixed people, hunger and impermanence, no special feeding, feeding program disorders, trap Health, dirty air, too crowded, dark and humid, excessive servitude, long-term leisure, exercise is insufficient, lack of sunlight, neurological reactivity decreased, digestive tract become slow, also can cause this disease.[1].

1.1.3 the deficiency of vitamin A, vitamin B and mineral calcium in the mineral and vitamin deficiency can lead to the rumen's prosperity

The decrease of the power and the shrinking of the contraction force affect the function of the humoral regulation, and the rumen retardation occurs.

1.1.4 stress factors due to sudden changes in feeding management or severe cold, heat, starvation, fatigue,

- Weaning, outlier, fear, infection, poisoning, surgery, trauma, pain and many other factors
- The stimulation, causes the stress reaction, causes the parasympathetic nerve inhibition, occurs the rumen slow.[2].

1.1.5 Excessive slaving can cause the excitability of the central and autonomic nervous system in cattle to decrease, before

The gastric contraction force is reduced, the tension is insufficient, then causes the stomach contents material to be unable to operate, is difficult to expel.

1.2 Secondary rumen retardation

There are many reasons causing the delayed rumen of secondary factors, including the traumatic net gastritis of dairy cows, rumen acidosis, such as gastrointestinal diseases, oral diseases, production paralysis, cartilage diseases, such as nutritional metabolic diseases, bovine epidemic heat infectious diseases, bovine liver tablets, such as parasitic diseases, colds and other febrile diseases, mastitis, endometritis, physical decline and improper use of drugs can occur in this disease.

2. Clinical Symptoms

The typical symptom of rumen retardation of dairy cows is: (1) appetite drops, even disappear, sometimes appear the phenomenon of abnormal. (2) ruminant weakened: ruminant weakness and even disappearance, (3) belching reduction: normal time to carry out 20~30 every hour, relatively speaking, after a slight increase in food. After the onset, the number of belching decreases or disappears. Clinical symptoms can also be subdivided into acute rumen retardation and slow rumen retardation.

2.1 Acute rumen retardation

- suffering from bovine appetite loss, mental depression, dry mouth. There was no change in body temperature, respiration and pulse. The rumen peristalsis weakens and even stops, touching the contents of the rumen hard. Early constipation occurs, and later if enteritis occurs, it discharges watery feces.

2.2 Chronic rumen retardation

- Clinical symptoms are basically the same as acute rumen retardation, but there are some differences. Cow symptoms when light weight, good time and bad appetite, belching odor, rumen content to touch soft or hard. In the late stage, the disease will cause anemia, hypothermia, dehydration, respiratory distress and other symptoms.

3. Diagnostics

- rumen Examination: Visual diagnosis, left fossa subsidence or mild rumen distention, mainly according to The is also related to the type of feed to be fed, whether or not it occurs. Palpation, the rumen wall elasticity decreased, the content is small and soft. Auscultation, rumen peristalsis weakened, including tumorgastric peristalsis fewer times, volume decreased, duration less than 14s, each creep duration time shortened. Percussion, percussion sound changes little. Some cases appear empty chew, molars are nowlike. The diagnosis was based on appetite, ruminant, belching
weakened, no systemic symptoms and combined with rumen examination. If necessary, the rumen fluid can be
examined. The normal rumen fluid pH is in the 6.5~7.0, after the rumen retardation pH<5.5 or 8. The number of
ciliate is normal is million/mm, after the rumen retardation occurs/mm[3].

The diagnosis of rumen retardation should be distinguished from the following diseases. Cold: There will be
elevated temperature, tears, runny nose, nasal sweat and other symptoms. Cow diseases: exhaled

The gas smells rotten apple. Traumatic network gastric peritonitis: palpation of abdominal wall pain, the left ventral
side of the puncture visible gastric juice. Rumen acidois: The pH value is lower than the anterior gastric flaccid, and the
rumen fluid appears yellowish green. Traumatic net stomach peritonitis: The body temperature rises, the palpation
abdominal wall has the pain. True Gastric left displacement, the course of the disease is longer than the anterior stomach,
can be auscultation on the right side of the stomach after the true gastric motion sound, puncture visible real gastric juice,
rectal examination, arm adhesion sauce paste.

4. Treatment

The treatment of bovine rumen retardation, The Most important method is to pay attention to the feeding and management
conditions of cattle, only give cattle a good environment to reduce the occurrence of such diseases. In addition to the
section learn to choose feed, can not mildew, cattle do not like to eat feed to cattle. The same kind of feed for long-term
use, can not suddenly change the feed ingredient. In peacetime, the opportunity to give the cow more exercise, can not
let its long-term fixed.

4.1 Fasting

The digestion ability of the diseased cattle with slow rumen is poor, and should be fasted properly. Until the
reverse humble, feces recovery can be fed a little soft, digestible forage. When you are experiencing constipation, use a
laxative to promote defecation and prevent fecal deposition in the body. Commonly used slow laxative has honey, edible
vegetable oil, paraffin oil and so on.

4.2 excitement and promotion of anterior gastric peristalsis

At present, the general treatment of dairy cows rumen retardation program, generally oral stomach drugs such as
tangerine peel tincture, ginger tincture, gentian tincture, artificial salt, etc. or use parasympathetic doping (choline or
cholinesterase), that is, subcutaneous injection of choline chloride, etc. class of drugs, but also can be combined with
digestive aids such as milk enzyme, pepsin, etc. together to make use; the rumen retardation caused by excessive
fermentation can also be combined with Mashiji alcohol, garlic tincture, aromatic ammonia 酪 and other drugs; Finally,
it can be combined with physiotherapy, that is, the rumen massage further facilitates the slow recovery of the rumen.

4.3 Integrated Chinese and western medicine treatment

Practice has proved that the combination of rumen massage and Chinese and western drugs in the treatment of
rumen retardation has a non-good results, 仇璋 in the "herbivores" published in the "Combination of Chinese and
western medicine"rumen Massage for the Treatment of bovine anterior gastric delay, the method of combining the
rumen massage to treat the rumen late slow, namely: "Before the first massage, ~200g sodium bicarbonate or artificial
salts dissolved in 5000ml warm water, to the diseased cattle, and then traction disease cattle movement, after the quiet
after the rumen massage, that is, along the rib Arch edge, 脌, medial thigh abdominal wall, abdominal bottom of
the wall, From top to bottom, force moderate, even, follow the reverse massage, to the abdominal bottom wall, massage arm
elbow to the corresponding knee. Massage the 2 times every day, with continued ~ 20 min, the massage process can be heard
in the rumen, Sick cow performance Amenscate, Pre-massage auscultation rumen peristalsis 1 times, after the massage, 30
mininand then auscultation, a after the 3. After the obvious changes, continuous massage 2~3 d, with medication,
rumen function quickly restore."[4,5].

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4.4 Massage The rumen

Massage, first to the sick cattle to fill a certain amount of sodium bicarbonate, and then the cattle traction A for a while, wait for quiet after the rumen massage, pay attention to moderate force and even, after the massage to listen to diagnosis. Generally massage 3 times a day, and 2 can produce results. After the massage produces the effect, the can pour stomach alcohol, further stimulates peristalsis. However, the rumen massage description is simple, but in fact, the workload is very large, requires the operator has good strength and strength, and the text of the individual massage method is obviously not suitable for large-scale dairy farms, so a high The device of automatic massage for rumen needs to be developed. At present, there are reports of hand-held dairy cow rumen massager, which can massage the rumen of ruminant from the inside. The appliance includes a massage ball and a retention strap, the left side of the massage ball is fixed with the left-hand body, and the right side fixed with the right vibrating body, and the massage ball is fixed with a sliding frame. By feeding the cow massageto the ball, so that the massage ball into the rumen of cows, massage ball weight larger, will gradually sink into the tumor.

The bottom of the stomach, in contact with the rumen wall, and is difficult to chew the cow, leaving the cow in the rumen of the Massage ball in the rumen internal massage, effectively promote the rumen smooth muscle peristalsis, compared to external massage to achieve a multiplier effect, effectively reduce the cow rumen slow symptoms.

In addition, the study will be external massage bar and internal massage ball combination, massage bar can be external control internal massage ball, so that massage ball rhythmic vibration, to achieve from the rumen internal to the ruminant rumen smooth muscle massage function, combination of internal and external massage, make press the rub effect is greatly enhanced. Hand-held massage stick handle and massage head for rotatable, the connected to the motor circuit, the motor can drive massage head rotation, and massage head for the belly of a end settings have a number of massage bumps, these massage bumps in the motor driven under can achieve The function of massaging the rumen of ruminant from the outside. A combination of external and internal can better treat rumen retardation in cattle.

5. Prevent

1. to strengthen the feeding management and reasonable preparation of ration. It is prohibited to feed coarse or frozen feeds that prevent concentrate or. Do not suddenly change the feed, can not be fed over themore. Enhance the physique of cattle. Timely detection of cattle, early to take symptomatic treatment measures.
2. Cattle are carefully reared to provide clean drinking water and feed the right amount of digestible grassor high quality hay, do not give too much concentrate.
3. The barn is well laid out and the house is dry, the air is in circulation, and the house is good. Internal hygiene, regular disinfection. Keep the ventilation warm and free from outside interference.
4. Pay attention to reasonable causative, strictly prohibit excessive causative.
5. Timely treatment of cattle after rumen retardation can not delay the treatment time, change into chronic rumen retardation.
6. Do not give animal-derived protein feeds.
7. Do not randomly use drugs, prohibit large doses of sulfa drugs or four-ring Vegetarian drugs.

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