

LABORATORY DIAGNOSIS OF GASTRIC FLUID DURING LARGE ABDOMINAL ACIDOSIS

Khayitov Bekjon

V.f.b.f.d., PhD, Samarkand State University of Veterinary Medicine, Animal Husbandry and Biotechnology. Samarkand, Republic of Uzbekistan

Abstract:

The article presents the essence of the digestive processes in the anterior stomachs and the aetiology of disturbances of these processes in productive cows, the dominant role of these disorders in metabolism, as well as a summary of laboratory studies of the rumen, as one of the methods for diagnosing diseases of the anterior angina and analysis of preliminary studies in this direction.

Keywords: *picked sections of the stomach. Infusions. Beneficial bacteria. Large abdominal acidosis. Gelamine. Dyspepsia. Antibiotic. Probiotic. Phytotherapy.*

Introduction

Introduction. One of the main challenges in implementing measures to improve the Public Administration system in veterinary and livestock Sox, as outlined in Famo No. 5696 of March 28, 2019, is addressing the digestive system diseases, such as stomach ulcers, in Corva cattle. The study of diseases in the pre-gastric sections of productive cattle in the Republic, including their relationship with feeding conditions, geoecological factors, and endemic features, has been incomplete. Furthermore, there is a lack of effective methods for diagnosing, treating, and preventing these diseases.

Methodology. In 2024, research was conducted at the research laboratory of the Department of Internal Non-infectious diseases of the Samarkand State Veterinary Medicine, the vivarium of the University of Livestock and biotechnology, and the Department of Internal Non-infectious diseases of the same university. Additionally, research was carried out in the District of Jomboy at the Livestock firm» Abdurahmanov Mardon» Vivarium of the University and Livestock firm» Abdurahmanov Mardon» Samples of large abdominal fluid from all existing cattle in X were examined using organoleptic and laboratory tests.

Results. In ruminants, the stomach is divided into multiple chambers, specifically four portions, which include a huge abdomen, a collar, and a yoghurt-like substance called the rumen. The rumen is composed of a core stomach called the reticulum.

The primary process of digestion takes place in the large abdomen, where enzymes produced by symbiotic microorganisms such as bacteria, infusoria, unicellular fungi, and their various species are responsible for the digestion. In total, there are over 160 species involved in this process. The hydrolysis of carbohydrates and proteins in food leads to the formation of vinegar, milk, oil, propion, pirouzum, and Ant clamps, along with various other organic acids, alcohol, amiacal, carbonate angiidiride, hydrogen sulfide, methane, nitrogen, and other gases. Several of these compounds serve as a nourishment for symbiotic organisms, which derive sustenance from these substances by synthesizing proteins and converting nitrogen devoid of proteins into nitrogen that contains proteins.

Research has shown that sizable symbiotic organisms in the abdomen are responsible for synthesizing the majority of vitamins that are essential components of enzymes, particularly those belonging to group V. They metabolize sugar by converting it into plant starch and glycogen, which they store in their body, similar to how proteins are stored.

The symbionts in the big abdomen can only carry out their life activities and functions when the pH environment is within the ideal range of 6.5 - 7.5, which is reasonably stable and carefully regulated. The pH of the medium is maintained at a consistent level by utilizing the acids produced on the prominent abdomen (which is bent upwards) and the saliva that reaches the prominent abdomen.

When proteins are broken down, a significant amount of ammonia is produced in the digestive system, resulting in an alkaline environment with a pH of 8-9. This environment has an ideal impact for Gram-positive microflora, which includes a type of bacteria found in the intestines and a type of protein. Regardless of the scenario, whether the pH in the abdominal region lowers or increases, the symbionts' ability to sustain life is equally damaged or destroyed. This leads to the production of harmful compounds within the animals, causing a condition known as toxicosis and impairing the overall functioning of the body.

In order to evaluate these digesting processes, a substantial amount of fluid from the abdomen is examined using both sensory and scientific techniques.

Upon receiving the huge abdomen fluid, organoleptic examinations are promptly conducted on-site at the farm. This procedure involves the determination of the odor, color, presence of huge amounts of fluid in the abdomen, sediment, and flotation.

Lab tests on a significant volume of saliva from the abdomen measure the RN indicator, total volatile fatty acid levels, microflora functional activity, overall alkalinity, nitrite levels, and the quantity and types of microorganisms present (both fungi and bacteria).

The investigation revealed that the cows in the experiment had an average pH range of 6.2 – 6.5 in their big abdominal fluid, with approximately 350-420 thousand infusions per milliliter. During the periods between infusions, the body is fully enveloped by an abundance of cypress (*Holotricha k-s.*) and chala covered (*Spirotricha k-s.*) species.

In conclusion, In ruminants, the pre-gastric portions, together with the digestive canal, which provides the initial materials for metabolism, also serve as the primary entry point for the development of illnesses related to substance exchange.

The vivarium at Samdvmchb and the "Abdurahmanov Mardon" ch.f.cows in x have an average pH of the large abdominal fluid ranging from 6.2 to 6.5. The number of infusions in the fluid was around 350,000 to 420,000 per milliliter. During the intervals between infusions, the body is

entirely enveloped by cypresses (*Holotricha* k-s.) and chala covered (*Spirotricha* k-s.), with the latter species being the predominant one.

When evaluating the digestion of food in productive cattle, as well as the metabolic processes, it is crucial to do organoleptic and Morpho-biochemical investigations on the major abdominal fluids. These studies have significant diagnostic and prognostic value.

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