

**Bovine Viral Diarrhea (BVD) in a European Bison (*Bison Bonasus*) -  
Anatomopathological Findings and Diagnosis**

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**SUMMARY**

Also known as mucosal disease, bovine viral diarrhea (BVD) affect ruminates of all age, but is most common in young animals. The purpose of this study was the pathological evaluation of the digestive lesions and the establishment of the etiological diagnosis of a female European bison. One dead body of an European bison (*Bison Bonasus*), 2 years old, female, which came from a private farm of 11 heads from Sibiu County was used. The animals were imported from Germany a month before the disease appeared. The necropsy was realized after the classical technique concerning cattle. The biopsies were fixed in formalin 10% for 24 hr, wax embedded, and cut in 4-5 micrometers thick sections using the microtome. The samples were stained using classical techniques and were evaluated at microscope. The PCR method for detecting the Pestivirus infection has been performed.

Clinically, the animal showed depression, fever, loss of appetite, profuse watery diarrhea, ptyalism, dyspnea and the death occurred after 24 hours from the debut of the first symptoms. The necropsy revealed an advanced state of autolysis, dehydration, erosions and ulcers in the oral cavity, esophagus (the lower third), rumen, reticulum, omasum and abomasum. There have also been highlighted hemorrhagic duodenitis and colitis with the necrosis of the Peyer's patches. The histological exam showed acute ulcerative lesions of the oral mucosa, esophagus and prestomachs characterized by hyperemia, edema and necrosis of the epithelium and vascular endothelium with the appearance of thrombosis and hemorrhages. Inflammatory infiltrate with neutrophils, scattered macrophages and the presence of viral intracytoplasmic inclusion bodies, were also found. Through PCR technique Pestivirus type 1 was identified as being present.

The viral diarrhea disease in bison has an acute evolution with pathological features and sings similar with those from other ruminates. The histological exam in this case is orientating the diagnosis to a viral inclusion disease, but the certain establishment of the type of virus can only be made through the modern molecular techniques like the PCR method.

**Keywords:** BVD-MD, necrotic esophagitis, Pestivirus, *Bison Bonasus*

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