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CLINICAL SIGNS AND DIAGNOSTIC PROCEDURES FOR DETECTION OF BOVINE VIRAL DIARRHEA

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Bovine viral diarrhoea (BVD) is a viral contagious disease characterized with changes in the digestive tract and is found in acute, congenital and persistent forms, resulting with high mortality in heifers and young cows. The aim of this study was to describe the clinical signs and possible diagnostic procedures for early detection of bovine viral diarrhoea, through cases of positive animals in two dairy farms. In two farms with 16 (5 heifers and 11 milking cows) and 2 (1 heifer and 1 milking cow) East Friesian cows, respectively, were identified as positive cases of BVD. The diagnosis was accomplished by recording the clinical signs of the animals, collecting blood samples for diagnosis with Ag-ELISA and hematology analysis, additionally on spot autopsy was performed for recording the morphological changes in targeted systems. In the observed farms, two milking cows and one heifer in both farms were showing intermittent fever (39.40C – 40.80C), inappetence, apathy, rumen atony (1 – 2 weak rumen contractions in 5 min.) and polydipsia; after 3-5 days of these symptoms, the nasal discharge, saliva with desquamous epithelium, erosions with clear boundaries in the gingival mucosa, diarrhoea and high level of dehydration were found in all affected animals. After 6 – 8 days from the first symptoms the pregnant milking cow in the first farm aborted in the seventh month of their pregnancy. The calf from the other milking cow, in the same farm, died 5 days post partum. In the second farm the affected heifer had bloody diarrhoea. The blood serum from all animals from the farms was tested with Ag-ELISA for diagnosis of BVD and the findings showed that the sero-positive samples were from the animals which manifested the previously described symptoms. The hematological analysis revealed non-significant differences in parameters between sero-positive and sero-negative animals. The autopsy was performed on the sero-positive heifer from the first farm, and the following changes were observed: rhinitis, erosions in the oral cavity, myocardial hypertrophy, intestinal submucosal bleeding and dark brown mucous liquid in the intestines. The analysis of animal movements in and out of the farms confirmed that there was no introduction of new animals at the farms and the origin of all sero-positive animals is only from one milking cow, confirming the trans-placental transmission of

the disease which could be used in the strategy for eradication of BVD present in the dairy farms.