Seroprevalence of Maedi Visna in commercial flocks of dairy sheep from the Southeast region of Brazil

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Visna Maedi virus (VMV) is associated with a lifelong infection, and cause a slow and progressive disease, Maedi Visna (MV), characterized by indurative mastitis and interstitial pneumonia, generating economic and animal welfare losses. Few animals have evident clinical signs, which favors the spread of the pathogen and may underestimate its occurrence. For diagnosis, the Agarose Gel Immunodiffusion (AGID) technique is the most used in the routine due to its low cost, easy execution and high specificity. In Brazil, there are few studies about the prevalence of MV in sheep, and this study is the first carried out in dairy sheep. The aims of this study were to perform a MV seroepidemiological survey and zoosanitary characterization of the dairy sheep properties located in the Southeast region of Brazil. A zoosanitary questionnaire was applied and sera was collected from all animals older than four months. The AGID test for MV was performed according to the manufacturer's recommendations. The applied questionnaire was used to establish risk factors for VMV infection. A total of 1,142 animals in eight farms were sampled. The properties were distributed in three states of Southeast region, one in Rio de Janeiro, two in São Paulo and five in Minas Gerais. About the breeds, all flocks had Lacaune as major breed, only one herd had East Friesian breed for reproductive purposeIn all herds, the sheep were confined in some moment of their lives, and in two flocks there was no age segregation. Only one owner required health documentation before introducing a new animal in the flock. Mechanical milking was a practice in seven herds and milking line was adopted only when mastitis cases occurred. An important fact it is that only two of the eight owners interviewed had knowledge about MV and both were veterinarians. Of the eight farms visited, four showed at least one positive animal, a prevalence of 50% of positive herds. At the animal level, 0.7% (8/1,142) of the animals were positive. Seven positive animals were over eighteen months old, and one was less than 12 months, and all were female. No statistical difference was observed between groups. In conclusion, the MV is widespread in dairy sheep flocks in the Southeast region of Brazil, although in low prevalence. The absence of knowledge about the virus/disease maybe jeopardize the flocks' health and reduce futures productive levels from affected herds.

Keywords: Small Ruminant Lentivirus; Maedi Visna; Dairy Sheep; Seroepidemiology, Brazil

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