

Título: MAEDI-VISNA AND CAPRINE ARTHRITIS ENCEFALITIS BY AGAR GEL IMMUNODIFFUSION (AGID) IN SHEEP IN RIO DE JANEIRO STATE

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Abstract:

Caprine arthritis encephalitis (CAE) and Maedi-visna (MV) are life time infectious multisystemic diseases of chronic nature, caused by lentiviruses. These virus have economic importance to sheep and goat industry due to production losses and trade barriers. Both are regulated by the Sheep and Goat Health National Program (PNSCO) of the Ministry of Agriculture, Livestock and Supply, Brazil. In order to investigate these lentiviruses in sheep, blood samples were collected from 2013 to 2015 in four farms located in Cachoeiras de Macacu, Rio de Janeiro, Brazil. A total of 81, 36, 65 and 30 serum samples of sheep from premises A, B, C and D, respectively, were tested for MV. Premises A, B and C adopted the semi- intensive system of production, while the premises D had a intensive system for blood products. For CAE diagnosis, there were tested 81, 34, 68 and 30 serum from premises A, B, C and D, respectively. It is worth mentioning that the same animal belonging to the premises A was tested twice, three weeks apart. For serological diagnosis, the AGID was performed using commercial kit (Biovetech®, Recife, Pernambuco, Brazil), according to the manufacturer's instructions. The positivity of serum tested to Maedi-visna was 2.83% (6/212), coming from 50% (2/4) of the premises studied. The frequency by premises were 4.94% (4/81) and 3.08% (2/36) for A and C farms, respectively. As to CAE serology, 2.82% (6/213) of the serum tested were positive, coming from only premises A which had a frequency of 7.41% (6/81). In the animal with twice serum collection, positivity reaction appeared in the second time, evidencing a new case. Four serum samples were positive to CAE and MV, that be can explained by cross-reacting or mixed infection. According to the literature, it is expected higher prevalence of lentiviruses in intensive breeding systems, but there was no positive animals on premises D. Premises A and C had higher flow of buying and selling animals, and probably this rotation, without sanitary control appropriate, may had worked as a risk factor for virus dissemination. This study reports the presence of antibodies against MV and CAE in sheep flocks in the State of Rio de Janeiro and larger sheep sample are being investigated for more precise epidemiological conclusions.

Key-words: serology, lentivirolosis, sheep raising.

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