

EPIDEMIOLOGICAL PROFILE OF REPRODUCTIVE LOSS IN DAIRY CATTLE

PERFIL EPIDEMIOLÓGICO DE PERDAS REPRODUTIVAS EM UM REBANHO DE BOVINOS LEITEIROS

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Several agents can be present in dairy cattle with a history of abortion as *Neospora caninum*, *Leptospira* spp, Bovine Herpesvirus Type 1 (BHV-1) and *Brucella abortus*. Some of these are considered transmitters cosmopolitan zoonosis of great economic impact and risk to human and animal health. The aim of this work was draw an epidemiological profile of reproductive losses and to determine the prevalence of antibodies against the main agents of reproductive diseases in dairy cattle. The study was conducted on a property in São Carlos city. For determination of reproductive failure, pre-existing data of abortion and stillbirths were analyzed from January 2006 to December 2011 on an average of 274 dairy cows of Holstein and crossbred Holstein-Jersey. On March 1, 2012 blood serum samples were collected of 142 breeding animals of ages above two years, in which 21.1% showed cases of abortions or stillbirths of at least one pregnancy. We used serologic tests of microscopic agglutination test, immunofluorescent antibody technique, serum neutralization technique, tamponated acidified antigen test for detection of anti-*Leptospira* spp and anti-*Neospora caninum*, anti-Bovine Herpesvirus Type-1 (BHV-1) and anti- *Brucella abortus*, respectively. The tests were performed at Universidade Estadual Paulista, Botucatu and Jaboticabal campi and EMBRAPA Southeast Livestock. During the study period, it was observed an average monthly rate of 1.7 abortions and 0.7 stillbirths, with an incidence of 63.6% and 58.0% of the cases observed, respectively, between November and April, period of higher pluviometric precipitation in the region. Among the cases of abortions observed, 76.2% happened between the fourth and sixth month of pregnancy. The serological tests carried out showed that 15.5% of the animals had titers greater than or equal to 1:200 of anti-*Neospora caninum*. Among the animals with a history of abortions or stillbirths, 28.58% and 11.22%, respectively, were serum-reactive with these titles. Between animals positive to the test, the lowest title observed was 1:25, while the highest obtained was 1:400. Viral neutralization tests demonstrated that 26.8% of the animals had titers greater or equal to 1:256, and among the animals with a history of abortions or stillbirths, 38.1% and 55.56% were serum reactive in the range considered, respectively. Between positive animals for serum neutralization technique, the lower titers observed were 1:2, while the highest obtained was equal to or greater than 1:1024. Only 5.56% of the animals studied had titers equal to or greater than 1:200 in the microscopic agglutination test for diagnosis of *Leptospira* spp. Only a single animal with a history of abortion did not presented negative serology (title 1:100). No animal with a history of stillbirth was presented in the reagent test. The prevalent biovar in reactive animals was Pomona (40%), Hardjo (30%), Tarassovi (20%) and Wollfi (10%). There weren't positive reactions to the tamponated acidified antigen test for diagnosis of bovine brucellosis. The study suggests the possibility of concurrent infections by other agents causing reproductive failure in dairy cattle.

Key Words: Epidemiology, reproductive disorders, dairy cow.