Because of the importance of sheep, goats, and especially of cattle to the Brazilian Midwest, this study aimed to describe the occurrence of diseases of the central nervous system (CNS) of ruminants in the Large Animal Hospital of University of Brasilia that occurred from January 2003 to October 2009. The dates are based on history, epidemiology, clinical signs and laboratory tests, in addition to efficient forms of prevention and control. During the period, 1199 diseases were diagnosed in ruminants in our Hospital. Of these, 125 (10.43%) corresponded to diseases of the CNS. Of these cases, 87 (69.6%) cases were in cattle, 30 (24%) in sheep, seven (5.6%) in goats and one (0.8%) in buffalo. Botulism is the disease most frequent of which were observed with 22 cases (17.6%), followed by rabies and polioencephalomalacia with 18 cases (14.4%) each one, suppurative encephalitis, meningoencephalitis and meningitis (11 cases each one, 8.8%), bovine herpesvirus type-5 with nine cases (7.2%), nonsuppurative encephalitis, meningoencephalitis and meningitis with eight cases each one (6.4%). Tetanus and CNS trauma contributed with seven cases each one (5.6%), cerebral babesiosis and brain abscesses with four cases each one (3.2%). In some diseases there were only two cases (1.6%) as malignant catarrhal fever, caprine arthritis-encephalitis, malformation and organophosphate poisoning. Other diseases were diagnosed only once (0.8%) as closantel poisoning, schwannoma and enterotoxemia. Inconclusive cases represented 4.8% of diagnoses. With this, we observed that the CNS diseases have significative economic importance, especially when occurring in herd. Furthermore, they are important for achieving the differential diagnosis of rabies, this being the main CNS disease due to its character of zoonosis.

Keywords: Neurological diseases, sheep, cattle, botulism