

Cerebrospinal nematodiasis in goats brought to the Veterinary Surgeon's Office, Nallur, Jaffna: A retrospective study

Introduction and Objectives: Cerebrospinal nematodiasis (CSN) is a neurological disorder affecting goats, sheep and horses (aberrant hosts) caused by the larval migration of *Setaria digitata* in the central nervous system. This study aimed to describe the cases of CSN presenting to the study site.

Methods: This study was carried out on goats brought to the Veterinary Surgeon's Office, Nallur during the past three years (2019-2021). The goats diagnosed as CSN based on the typical clinical signs during this period were included in this study. The details regarding breed, sex, history, treatment, and risk factors were analysed.

Results: A total of 84 cases (3.4%) out of 2502 cases that presented in 2019, 170 cases (4.5%) of 3755 in 2020, and 97 cases (3.4%) of 2838 in 2021 were clinically diagnosed as CSN. Of the 351 clinically diagnosed cases, 52% were females. Among the infected females, 21% were pregnant. Jamunapari was the most affected breed (49%) compared to saanen (33%) and cross breeds (18%). Of the three classified age groups (< 1 year, 1-3 years and >3 years), most were within 1-3 years. Approximately 68% of the cases were treated with the combination of ivermectin (0.2mg/kg, once), flunixin meglumine (2.2 mg/kg) and chlorpheniramine maleate, while severely affected animals (32%) were additionally treated with antibiotics and supportive therapy. The highest number of cases was recorded in 2020 when compared to the other two years. Monthly breakdown showed that the highest number of cases were reported in December (14%) and lowest in April (4.6%). Nearly 50% of the total cases were recorded from October to January which coincides with the rainfall pattern of the Northern Province.

Conclusions: Jamunapari is the mostly affected breed. The majority of the study population was within the 1 to 3-year age group and the incidence was more common in females. The occurrence of CSN may be correlated with the rainfall pattern of the province since the mosquito vectors are abundant during this period. Farmers should therefore be advised on control strategies, especially during the rainy season of the year.

Keywords: *Cerebrospinal nematodiasis, rainfall, Setaria digitata, aberrant hosts*