

PRELIMINARY SURVEY ON THE CENTRAL NERVOUS SYSTEM PATHOLOGY OF SMALL RUMINANTS OF ALENTEJO REGION (SOUTH PORTUGAL)

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Une étude transversale a été proposée pour faire la description épidémiologique des probables causes de cas du système nerveux centrale (SNC) des petits ruminants de la Région Alentejo au Sud du Portugal. L'enquête descriptive a compris un questionnaire postal pour les vétérinaires des troupeaux et des visites de confirmation aux troupeaux suspects. Un échantillon de 651 troupeaux a été sélectionné par une méthode d'échantillonnage aléatoire systématique du total de 13 689 troupeaux enregistrés dans la Région. Le questionnaire, comprenant six modules, a inclus un groupe de questions relatif à huit symptômes pour identifier les cas de maladies du SNC. Ont été retournés 296 (45,5%) questionnaires et 21 (7,1%) troupeaux ont signalé la présence de cas suspects. Les visites de validation et les analyses de laboratoire déjà effectuées ne montrent que des problèmes parasitaires, métaboliques et toxiques.

In order to investigate a frequent claim by field veterinarians of Alentejo Region (South of Portugal) of central nervous system (CNS) cases affecting Small Ruminant (SR) flocks a two-year research project was started in November 1995. A transversal study was designed to describe the characteristics and distribution of the eventual responsible entities and to serve as a basis of a future follow up study. One of the objectives of the study was the assessing an eventual presence of scrapie in the SR flocks of the Region. The referred cases to be studied were encouraged both by an active notification campaign directed to the local vet practitioners and by a survey devised to the Alentejo SR flocks. The survey has comprised a questionnaire to be answered and mailed back by the vet flock assistant and a validation visit of the suspect flocks by a project team. The sampling criteria adopted has established the following conditions: flock as the epidemiological unit; reference value of P=5; level of precision accepted of 10%; adjustment index for anticipated no response and drop out; 95% confidence level. The 13 689 SR flocks of Alentejo Region were listed according to the databases supplied by the 11 Animal Health Defense Farmer's Associations (ADS). These were arranged by alphabetical order and a sequential number was given to each of the corresponding flocks. A total number of 651 flocks were sampled using a systematic random sampling method. A two-pages questionnaire was prepared and tested before used. It was mailed enclosing a letter briefly explaining the aim, the methodology and the details of its returning. The questionnaire integrated six modules of questions such as : the identification of the owner of the flock; the identification of the flock, the vet assistant and the ADS of origin; the general characteristics of the flock; the policy of animal purchase; the general pasture management of the flock; and, the presence of suspected cases of central nervous system symptoms. The latter include a grid of eight symptoms and signs including seven probable CNS and one non-CNS alternative. Photosensibilisation was the no-CNS symptom as it is referred to be affecting some of the flocks of the Region and is related to the ingestion of toxic plants eventually cause of metabolic disturbances. From the 296 questionnaires returned (45.5% turnover), 21 flocks (7.1%) of ten ADS geographic zones have noticed the presence of an eventual CNS problem. The size of suspect flocks ranged between 30 and 1700 animals. Validation visits of the suspect flocks are in progress. They include the fulfilment of a more detailed questionnaire and the collection of samples either from found dead or purchased animals showing CNS symptoms. At necropsy, samples from the brain, liver, spleen, kidney, lung and blood were collected for further study. Diagnostic tests were performed covering parasitic (coenurosis and oestrosis), bacterial (listeriosis, chlamydia and anaerobic agents), viral (visna-maedi), metabolic, toxic and prion (scrapie) diseases. A team of agronomists is collaborating with the project and performing an inventory of eventual toxic plant species present in the pastures of a sample of the suspect flocks. Besides the suspect flocks identified by the survey, another 30 flocks were reported by the direct notification system put up by the study. Up to now from the total of 51 suspect flocks no other causes but parasitic, toxic or metabolic were found. A slaughterhouse report system of CNS cases is being organized in order to generate data to further support a future follow-up study.

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