

Rabies situation in Finland

- surveillance and monitoring of rabies and monitoring of antibody levels in the vaccination area

Veterinarian Miia Jakava-Viljanen
Finnish Food Safety Authority (Evira)
Virology
Mustialankatu 3
FI-00790 Helsinki, Finland
Miia.Jakava-Viljanen@evira.fi

The control of wildlife rabies in Finland is centralized at Evira for rabies surveillance work, rabies diagnostic, including all laboratory investigations such as serology testing and life vaccine titration. The elaboration of baiting strategies is planned annually together with the Ministry of Agriculture and Forestry.

After 1989 no rabies cases have been found in Finland, except one case in imported horse from Estonia in 2003. In accordance with the WHO standards, Finland was declared rabies free in 1991. The infection pressure in wild carnivores species in Russia and Baltic countries during the last years is, however, high and it poses a continuous risk for the reintroduction of the disease.

A field campaign of oral vaccination of raccoon dogs and foxes was started 1988. In the first year the bait distribution was mainly done by local volunteer hunters, but also aerial distribution was used, which has been successfully used in the following years. Since the beginning of 90s, vaccine baits have been distributed over a 20-30 km wide and 250-300 km long zone along the south eastern border against Russia. The objective is to maintain an adequate immunity in the wild raccoon dog and fox population in order to prevent rabies epidemics in Finland. The unfavorable progress in rabies situation in the eastern neighboring countries during the last years is a threat. Since 2003 rabies vaccine baits have been also distributed on the adjacent area on the Russian territory.

Continuous surveillance and monitoring for rabies has been carried out by Evira in Finland. Epidemiological screening is necessary to detect any new outbreaks of rabies at an early stage. For surveillance animals are tested for rabies virus. In Finland the tendency to test is

approximately 20-40 suspected domestic animals and approximately 400-700 wildlife animals, mostly raccoon dogs and foxes, every year. Locally the control is carried out by provincial veterinary officers and municipal veterinary officers. Furthermore, all other veterinarians are responsible for notifying immediately official veterinarians when they suspect rabies. In the period 01.01.-21.11.2006 altogether 473 wild animals and 19 domestic animals were examined, all with negative results. Diagnosis of rabies was performed using the WHO/OIE recommended techniques.

The efficacy of rabies oral vaccination campaigns are evaluated by measuring the antibody response after vaccination. Assessment of rabies antibodies in target species from vaccinated areas is made by RFFIT (rapid fluorescent focus inhibition test). Rabies antibody surveillance in Finland in 1.1.2006 - 20.11.2006 with a bait density of 18-20 km², the presence of seropositive animals in vaccination area was 56 %, less than 50 km from vaccination area 33 % and 50-100 km from vaccination area 50 %. Each vaccine batch is checked for rabies titer at reception and before released on the field.