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A Case of Rabies in a Cow

[1]Ismail Aytekin and [2]Nuri Mamak
[1]Department of District Agriculture, Suut-Afyonkarahisar, Turkey
[2]Department of Internal Medicine, Faculty of Veterinary Medicine,
Mehmet Akif Ersoy University, Burdur 15100, Turkey

Abstract: In Afyonkarahisar province, a Holstein cow, which has TR030000075876 ear-number and born on the 27/04/2002 was referred to clinic with complaints of anorexia and apathy. Pain, salivation, tenesmus, bellowing with tongue hanging out, leaning against objects, attempting to bite of objects, occasional postural appearance of kyphosis, hydrophobia and dysphagia were detected in the clinical examination. Rabies was considered in the cow and the obtained pathological samples (head) were sent to the laboratories of Konya Control and Research Institute. Diagnosis of rabies was made by fluorescent antibody technique in the samples. It was thought that the rabies should be taken into account in ruminants showing neurological symptoms besides anorexia and apathy.

Key words: Rabies, cow, virus, neurological symptoms, diagnosis

INTRODUCTION

Rabies, which is formed by specific virus, is an acute, infectious, fatal and viral illness of central nervous system. It is spread trough bite from animal to animal and from animal to human. The infected domestic animals are the source of human rabies (Ilgaz, 1994; Imren and Sahal, 1994). All the worm blooded animals, included human, may be contracted the illness. It is seen rather frequently in the wild animals such as foxes, wolves and jackals right along with domestic animals such as dogs, cats, cattle, sheep and horses. Rodents such as mice, squirrels, poppies and hamsters might be constructed the illness. It is reported that the vampire bats and the bats eating insect take a part in the spread of illness (Ilgaz, 1994; Imren and Sahal, 1994; Aylan, 2006; Jonson *et al*., 2006). The virus of rabies has the ability of infection for the all worm blooded animals and it is terminal illness in almost all phenomenons. The dogs with 91%, the cats 2%, the other domestic animals 3%, vampire bats 2% and foxes 1% are the biggest source in communication of disease to human. Rabies is seen in all the countries except the countries where rigid quarantine measures are practiced and the island countries where, dog access is forbidden. While, wild animal rabies is in 12% ratio of total rabies cases in European countries, this ratio is about 1.6% in our country, 98.4% of rabies in Turkey is the rabies of domestic animals (Ilgaz, 1994; Goktas *et al*., 1995; Aylan, 2006).

The incubation period following a bite by an animal is usually 14-90 days for rabies. Although, incubation periods for organism are uncertain, it varies 30-60 days for cattle (Imren and Sahal, 1994). Hudson *et al*. (1996) have reported that the average incubation period for cattle is 15.1 days.

The clinical symptoms of rabies in cattle are observed as anorexia, excessive bile, cowardice, anger, snuffing through heaving head up and looking for something in the air, changing foot often and long bellowing in a feeble pipe, ache symptoms and tenesmus. The animal can not eat bait and drink water because of mandibular apoplexy. Absorption trouble, saliva flow, paralysis are shown by Barnard (1979), Imren and Sahal (1994) and Hudson *et al*. (1996). In their clinical observation, Hudson *et al*. (1996) have observed in 20 cattle that there is 100% excessive salivation, 100% changes in animal behaviors, 80% dither in mouth, 70% bellowing, 70% being stimulated excessively, 60% pharynx apoplexy, 70% anger and aggressiveness. In their rabies observation for 10 years, Barnard (1979) have stated that 92% salivation, 69% bellowing, 47% aggressiveness, 30% apoplexy and 12% straining are seen in the cattle. Findings of rabies are very characteristics in many cases. Although, the disease can be diagnosed through clinical findings, the definite diagnosis can be done through only laboratorial examination (Ilgaz, 1994; Singh and Sandhu, 2008). In this phenomenon, it is aimed at the assessment of a rabies case determined in a cow.

MATERIALS AND METHODS

In Afyonkarahisar area, a Holstein cow was brought to the clinic because of the complaint of anorexia and apathy. In the clinical examination, it was determined that

Corresponding Author: Nuri Mamak, Department of Internal Medicine, Faculty of Veterinary Medicine,
Mehmet Akif Ersoy University, Burdur 15100, Turkey

Fig. 1: Bellowing

Fig. 2: Straining

Fig. 3: Postural appearance of kyphosis, leaning against wall and attempting to bite of objects

there was languor and pang in turn, salivation, straining, bellowing through tongue hanging out, leaning against objects, attempting to bite of objects, occasional postural appearance of kyphosis, hydrophobia and dysphagia in the cow (Fig. 1-4). It was considered that there was rabies in the cow and the obtained pathological samples (head) were sent to the laboratories of Konya Control and Research Institute. Rabies was diagnosed through fluorescent antibody technique in the sample. The exit

Fig. 4: Aggressiveness

and the atelectasis of the disease were fulfilled according to the Law of Animal Health and Municipal Police because of Afyonkarahisar City Agricultural Directory (No. 03.04.HSG.03.03/536/1506-12763 and dated 25/07/2008).

RESULTS

Rabies is an acute progressed and fatal viral infection of central nervous system. All the worm blooded animals, included human, may be contracted the illness. It is seen rather frequently in the wild animals such as foxes, wolves and jackals right along with domestic animals such as dogs, cats, cattle, sheep and horses. The virus of rabies has the ability of infection for the all worm blooded animals and it is terminal illness in almost all phenomenons. The dogs with 91%, the cats 2%, the other domestic animals 3%, vampire bats 2% and foxes 1% are the biggest source in communication of disease to human (Ilgaz, 1994; Goktas *et al*., 1995; Jonson *et al*., 2006).

The incubation period following a bite by an animal is usually 14-90 days for rabies. Although, incubation periods for organism are uncertain, it varies 30-60 days for cattle (Imren and Sahal, 1994). Hudson *et al*. (1996) have reported that the average incubation period for cattle is 15.1 days.

Although, the course of the disease is the same in all animals, there are little differences. The clinical symptoms of rabies in cattle are observed as anorexia, excessive bile, cowardice, anger, snuffing through heaving head up and looking for something in the air, changing foot often and long bellowing in a feeble pipe, ache symptoms and straining. The animal can not eat bait and drink water because of mandibular apoplexy.

DISCUSSION

Absorption trouble, saliva flow, paralysis are shown Barnard (1979), Imren and Sahal (1994) and

Hudson *et al*. (1996). In their clinical observation, Hudson *et al*. (1996) have observed in 20 cattle that there is 100% excessive salivation, 100% changes in animal behaviors, 80% dither in mouth, 70% bellowing, 70% being stimulated excessively, 60% pharynx apoplexy, 70% anger and aggressiveness. In their rabies observation for 10 years, Barnard (1979) have stated that 92% salivation, 69% bellowing, 47% aggressiveness, 30% apoplexy and 12% straining are seen in the rabid cattle. The symptoms seen in our rabies phenomena and the clinical symptoms mentioned by the researcher above resemble each other.

The owned and ownerless animals, that bite and scratch human and reported to authorities are caught by the authorized team according to The Introduction against Rabies and The Law of Animal Health and Municipal Police and they are observed in the place of isolated quarantine in veterinarian facility. They are watched for 10 days from the date of bite. The animals, which die from rabies in this process, are diagnosed in terms of rabies in laboratory and the healthy animals are given back to their owners after their preventive rabies vaccination are vaccinated.

CONCLUSION

In order to prevent rabies in domestic animals, stray cats and dogs must be under supervision and they must be vaccinated and quarantine measurements should be taken and people must be informed and educated about rabies to control rabies in the country. The livestock in the area where, rabies are seen must be vaccinated. Temporary care units should be set up for the aim of having owners for the dogs.

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