A Case of Furious Rabies in a Man Following Unusual Long Incubation Period

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ABSTRACT

A civil worker exposed to bite injury of a rabid dog on lower part of a limb nine years ago was treated palliatively and succumbed to rabies. He had neither undergone pre-exposure nor post-exposure prophylaxis to rabies after exposure to the dog bite. The clinical signs were suggestive of rabies and the corneal impression smear, by immunofluorescence, revealed viral particles.

Keywords: Corneal smear, direct FAT, long incubation period, rabies, rhabdo virus.

Rabies, a zoonotic disease, transmitted to humans and other mammals mainly through bite of rabid animal causes fatal encephalitis. It is caused by a ssRNA virus belonging to genus Lyssavirus. The annual human rabies deaths worldwide have been estimated to be about 55,000 (WHO, 2005). India accounts for about 22,000 to 30,000 fatalities per annum alone (Sudarshan et al., 2006). Every year, more than 15 million people worldwide receive a post-exposure preventive regimen to avert the disease. No tests are available to diagnose rabies infection in humans before the onset of clinical disease. The signs of hydrophobia or aerophobia in patients are suspected for rabies. Seventy five per cent of patients become ill in first 90 days after exposure and infections presenting more than a year after exposure are very rare (Fooks et al., 2003). Hence, this paper presents the diagnosis of an occasional case of furious rabies manifesting clinical signs after 9 years of exposure to dog bite.

A civil worker, aged 40 years, employed in Ambathur real estate, Chennai had the history of exposure to bite of a stray dog on calf region of a limb and had not shown any signs suggestive of rabies until 9 years, during which period he had undergone neither pre- exposure anti-rabies vaccination nor rabies specific post-exposure treatment. After 9 years of exposure to a dog bite, he showed onset of fever, headache, discomfort, followed by symptoms of cerebral dysfunction like anxiety, agitation, progressing to delirium, abnormal behavior and hallucinations. Hence, he was admitted to Madras Medical College, Chennai and was treated conservatively and referred to Madras Veterinary College, Chennai for the specific diagnosis of rabies. He died within 7 days of admission and postmortem examination was not carried out.

The case was examined cautiously by the staff of the Department of Veterinary Epidemiology and Preventive Medicine, Madras Veterinary College, Chennai and impression smears were collected from the cornea of the suspected case of rabies. The corneal smear was examined under fluorescent microscope using the fluorescein isothiocyanate (FITC) conjugate.

The clinical signs of rabies were in accordance with Awasthi et al. (2001) who observed a wide variety of symptoms, ranging from widespread CNS
excitation to flaccid paralysis. The affected man, an SSLC drop out, ignored the post exposure therapy because of the very low severity of the bite injury and his lack of awareness on the outcome of a rabid dog bite. Tirawatnpong et al. (1989) stated that clinical symptoms of hydrophobia and aerophobia are present in only half of these patients. The patient died of rabies as the disease is practically 100% fatal and is without any cure even today (Sudarshan, 2007).

The incubation period of rabies in this case was 9 years. Mrak and Young (1994) stated that the incubation period of rabies is typically 2 to 8 weeks, however, the incubation could be long based on the type of infecting strain, low quantum of inoculum and long distance of the site of the bite to the CNS, the severity of bite and number of wounds inflicted. Nandi et al. (2008) also stated that a bite on the face a contagion index of 100%, whereas on the leg is about 25%. The viral antigens were demonstrated by the OIE recommended test, fluorescent antibody technique, using the specific antibody coupled with fluorescein isothiocyanate dye as apple-green fluorescent particles under the fluorescent microscope.

The people at risk of acquiring rabies should be vaccinated prophylactically and post-exposure anti-rabies vaccination should be instituted without any delay in the exposed persons as the incubation period of rabies may be misleading and inconclusive of the infection.

REFERENCES