

Aten Years Rabies Data Exposure and Death Surveillance Data Analysis in Tigray Region, Ethiopia, 2023

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Abstract : Background: Rabies is acute viral encephalitis affecting mainly carnivores and insectivorous but can affect any mammal. Case fatality rate is 100% once clinical signs appear. Rabies has a worldwide distribution in continental regions of Asia and Africa. Globally, rabies is responsible for more than 61000 human deaths annually. An estimation of human mortality rabies in Asia and Africa annually exceed 35172 and 21476 respectively. Ethiopia approximately 2900 people were estimated to die of rabies annually, Tigray region approximately 98 people were estimated to die annually. The aim of this study is to analyze trends, describe, and evaluate the ten years rabies data in Tigray, Ethiopia. Methods: We conducted descriptive epidemiological study from 15-30 February, 2023 of rabies exposure and death in humans by reviewing the health management information system report from Tigray Regional Health Bureau and vaccination coverage of dog population from 2013 to 2022. We used case definition, suspected cases are those bitten by the dogs displaying clinical signs consistent with rabies and confirmed cases were deaths from rabies at time of the exposure. Results: A total 21031 dog bites and 375 deaths report of rabies and 18222 post exposure treatments for humans in Tigray region were used. A suspected rabies patients had shown an increasing trend from 2013 to 2015 and 2018 to 2019. Overall mortality rate was 19/1000 in Tigray. Majority of suspected patients (45%) were age <15 years old. An estimated by Agriculture Bureau of Tigray Region about 12000 owned and 2500 stray dogs are available in the region, but yearly dog vaccination remains low (50%). Conclusion: Rabies is a public health problem in Tigray region. It is highly recommended to vaccinate individually owned dogs and concerned sectors should eliminate stray dogs. Surveillance system should strengthen for estimating the real magnitude, launch preventive and control measures.

Keywords : rabies, Virus, transmission, prevalence

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