

Epidemiological Characteristic of Animal Bite and Direct Economic Burden of Rabies Vaccination in the Southern of Iran

Vahid Rahmanian, Heshmatollah Shakeri, Abdolreza Sotoodeh Jahromi, Masihollah Shakeri, Hekmatollah Khoubfekr and Iman Hatami

Abstract

The ever-increasing cases of animal bites caused by rabies, livestock losses, as well as economic damages are of utmost importance in developing countries. This study was conducted to determine the epidemiology and the direct economic burden of rabies vaccination in southern Iran in 2018. In this study, 375 cases of animal bites which were recorded in Rabies Treatment Centers of Larestan County, Iran were entered into the study by census method. The data were collected from the registered office profile of people who had referred to these centers. The variables examined included victims' demographic characteristics, bite specifications, spatial and temporal patterns, victims' clinical dimensions and vaccination costs. Of 375 registered cases, 83.7% of the cases were male and there was no statistically significant difference between the mean age of males (30.82 ± 17.31) and females (30.49 ± 18.79) ($P = 0.895$). As well, 58.7% of the victims were residing in urban areas and farmers (25.6%) and students (23.9%) were the most frequent occupational groups suffering from animal bites (%) ($p < 0.001$). The most cases of the bites i.e., 68% had been also produced by dogs and 64% of them were from the owned biting animals. As well, direct costs were estimated US\$ 9373 for vaccine, US\$ 24115 for rabies RIG and the US\$ 33488 cumulative economic burden in the studied period. In conclusion, it is found that the major cases of animal bites in Larestan County had been caused by dogs and owned biting animals which could impose a heavy burden on Iran's economy.