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The Importance of Health Education in the Prevention of Myiasis

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ABSTRACT

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Myiasis is a disease that is caused by the invasion of the eggs and larvae of some families of dipterans to the living or dead organs and tissues of the host (Babamahmoudi et al., 2012, Delwar et al., 2021, Francesconi and Lupi, 2012, Jervis-Bardy et al., 2015, Jallow et al., 2024). This disease is usually seen in domestic animals such as goats, sheep, and cows, and it is seen in humans to a lesser extent than animals. Due to the climatic conditions of Iran, there are different types of myiasis (Calvopina et al., 2020). From the clinical point of view, myiasis is divided into eye, ear, nose, genital, oral, digestive, and skin types based on the affected organ or organ (Salimi et al., 2010). In a review study that examined the state of human myiasis in the world from 1997 to 2017, 464 cases of myiasis were reported from 79 countries, 208, 150, and 52 cases were reported from America, Asia, and Africa, respectively (Bernhardt et al., 2019).The number of species reported as the cause of the disease was 42 species (Bernhardt et al., 2019, Singh and Banerjee, 2022). In the study of Alizadeh et al. in 2014, the total number of myiasis cases reported in Iran from 1975 to the end of 2012 was 77 from 16 provinces of the country, 62% of which were related to Fars province (Alizadeh et al., 2014). According to the clinical features, it was found that most of the myiasis cases (62%) were of the oral myiasis type. According to the surveys, the age group of 21 to 40 years included the largest number of myiasis reports, with 80.5% of men and 19.5% of women (Alizadeh et al., 2014). This disease is common between animals and humans, and this type of fly may enter their throats due to the contact of humans with animals. Human myiasis in the eye causes edema; Swelling becomes runny and itchy, and in the throat, there is inflammation of the pharynx and vocal cords, problems in breathing and speaking, burning, persistent and bothersome coughs, and runny nose (Salimi et al., 2010, Samimi et al., 2017, Salmanzadeh et al., 2018). Akbari et al showed that due to background knowledge of the involved people in exposure to oral myiasis agents, conducting some preventive measures based on improving their knowledge, attitude, and practices could be useful for reducing the risk of the disease

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in the area (Akbari et al., 2021). Various studies have mentioned the role of health education and protective measures in preventing people from contracting common diseases between animals and humans, such as brucellosis, Crimean Congo fever, etc (Jalilian et al., 2022, Oruogi et al., 2012). Calvopina et al showed that regarding myiasis, improved education and awareness among populations living in, visitors to, and health personnel working in high-risk regions, is required for improved epidemiological surveillance, prevention, and correct diagnosis and treatment (Calvopina et al., 2020).

Following health guidelines reduces the likelihood of myiasis and can prevent dangerous events (Sherman et al., 2005).

Due to the proximity of humans and livestock in rural areas, the risk of developing this disease has increased in developed and developing countries, including Iran. This issue shows the importance of controlling and improving knowledge and awareness about myiasis-producing flies and mosquitoes. Therefore, due to the importance of this disease, it is necessary to prepare appropriate educational programs and make them available to the audience to make people, especially those working in the field of animal and human health, aware of this disease and its complications.

• To control the damage caused by myiasis, it is necessary to pay attention to the people at risk.

• Provide preventive educational interventions based on health education patterns to recognize the disease and protective measures for the target group.

• Considering that this disease threatens human health in addition to animal health, necessary measures should be taken to deal with and fight against the vector.

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Conflict of interest

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Ethical considerations

All ethical considerations have been observed.

Code of ethics

Not applicable.

Authors' contribution

Z. K., was involved in writing and approved the final version of the manuscript.

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