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Entomology, Ornithology & Herpetology: Current Research

Commentary

Flea-Borne Diseases and their Prevention

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DESCRIPTION

Fleas are insects that belong to the order Siphonaptera. These are small, wingless insects with a hard cuticle having many bristles. The length of adult flea varies from about 0.1 to 0.32 cm and feeds completely on the blood of birds and mammals. These are mostly found in tropical and high temperature regions. There are two types of flea's cat fleas and human fleas. Cat fleas invade cats, humans, dogs, and wild animals. Invasion by fleas may leads to severe inflammation of the skin and extreme itching. Even though many animals get partial immunity after continuous or repeated attacks, individuals (especially humans) can sometimes become sensitized after exposure to fleas and develop allergies.

Diseases

The most commonly affected fleas are *Ctenocephalides felis*, *Pulex irritans*, *Ctenocephalides canis*, *Echidnophaga gallinacean*, and *Tunga penetrans*. *Ceratophyllus gallinae*, and *Ceratophyllus niger*. The *Ceratophyllus niger* are mainly feed on birds and rodents. Fleas, mainly *Xenopsylla cheopis*, act as principal carriers of rickettsial disease, a murine typhus of humans. These are mainly responsible for carrying diseases among rodents and other mammals. The most commonly transmitted diseases are tularemia and Russian spring-summer encephalitis. The life cycle of Fleas comprises of four stages egg, larva, pupa, and adult. The life span of flea varies from species to species for example the life span of *Echidnophaga gallinacean* is 5 weeks and the life span of *Pulex irritans* is more than one year.

Preventing fleas is best method to treat instantaneously present in both the host nest or bedding area, which is the breeding site of fleas, and the infested host, since the larval and pupal stages usually develop away from the host's body. For infected animals a commercial dust, dip, spray, or aerosol containing a growth regulator or insecticide is used. However, in some areas, fleas have developed resistance to some insecticides. For the control of larval and adult fleas away from the host, insecticides or growth regulators may be useful to the pens and haunts of the affected animals. Repellents may be effective in inhibiting attack by fleas. Oral/chewable tablets and topically applied lotions such as spot-ons are the most effective medicines available today to control fleas. Different dosages are available depending on the animal's weight. Spot-ons involves putting a few drops of solution on the tails of the dogs or between their shoulders. The commonly used lotions are Frontline and Frontline Plus. It helps in controlling both adult fleas as well as flea eggs. The tablets such as Comfortis, Trifexis, Bravecto, NexGard and Simparica are used to kill the fleas.

CONCLUSION

In order to get rid of fleas from home one should keep their premises clean and neat. Take out all clothing, toys, and stored items from floors, in closets, and under beds. Wash pet bedding regularly. Adult flea traps with a light and a glue board can be beneficial for catching fleas and monitoring treatment activity. Unless used in combination with other therapies, the traps will not be effective in eliminating an infestation. Before using the medication one should read and follow the directions mentioned in the label.

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Received: 08-Jul-2022, Manuscript No. EOHCR-22-17315; **Editor assigned:** 13- Jul -2022, PreQC No. EOHCR-22-17315 (PQ); **Reviewed:** 27-Jul-2022, QC No. EOHCR-22-17315; **Revised:** 02- Aug -2022, Manuscript No. EOHCR-22-17315 (R); **Published:** 09-Aug-2022, DOI: 10.35248/2161-0983.22.11.284

Citation: Singh R (2022) Flea-Borne Diseases and their Prevention. Entomol Ornithol Herpetol. 11: 284.