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Molecular epidemiology of zoonotic parasites: Need of the hour

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Molecular tools have become an integral part of studying the epidemiology of various infectious agents. Molecular biology provides one of the many diagnostic tools that can be utilized to strengthen understanding of the epidemiology of a disease. Molecular epidemiology is the application of molecular genetics technique to the dynamics of disease in a population. A range of new molecular tools have been developed in recent years for identification of parasites through molecular assays. With regard to parasites, the primary application of molecular epidemiology is to give a specific and sensitive identification of parasites so as to resolve taxonomic issues going below the species level. Many of such studies have given a new insight on transmission pattern of parasites more particularly with relevant to zoonotic transmission as well as on prevalence and importance of mixed infections with different parasite species or intra-specific variance. Such study has increased the understanding of the pathogenicity, virulence and host parasite relationship of the etiological agent, provided information on the genetic structure, taxonomy of the parasite and has allowed zoonotic potential of the previously unidentified agents to be determined.

Biography

Arumugam Sangaran has completed his PhD from Tamil Nadu Veterinary and Animal Sciences University. He is currently working as a Professor at Madras Veterinary College, a premier Veterinary Institution in South East Asia. He has published more than 25 papers in reputed journals and also received several awards. He has been continuously doing his research focusing on parasitic zoonoses more particularly on cystic echinococcosis.

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