Epidemiology of echinococcosis and other zoonoses in central Asia

Summary / Zusammenfassung

Human cystic echinococcosis caused by the larval stage of the dog tapeworm E. granulosus is a zoonosis of significant public health importance in much of Central Asia. There has been a substantial increase in the transmission of the disease since the start of economic, social and agricultural reform after the end of Soviet administration in 1991. For example, the annual human surgical incidence is now 10-20 cases per 100,000 in Kyrgyzstan. This is a four to five time higher than the period before independence from the Soviet Union. In order to design effective and cost-efficient intervention strategies, the dynamics of parasite transmission need to be thoroughly investigated. These data can then be exploited to simulate control strategies, to analyse the economic effects of the disease and to determine the cost of its control. E. multilocularis has also been recently detected at high levels in the rural domestic dog population and studies are on going to define the importance of this in the epidemiology of human alveolar echinococcosis. Diagnosis of these zoonoses can be a challenge and improved diagnostic tools are being developed and investment has been made in two new zoonoses laboratories in Kyrgyzstan to improve parasitological diagnostics in the medical and veterinary field. This has allowed the investigation of the epidemiology of other important zoonoses in the region including toxoplasmosis and toxocariosis (Torgerson et al., 2009). A training program for young Kyrgyz scientists has also been initiated which will ensure the long term sustainability of the project.

Publications / Publikationen


Torgerson, P.R. and B.S. Shaikenov: Echinococcosis in Central Asia: Problems and Solutions.


Keywords / Suchbegriffe
Echinococcus, Epidemiology, Diagnosis, Zoonoses

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