The prevalence and economic importance of bovine fasciolosis in Kenya--an analysis of abattoir data

Kithuka JM, Maingi N, Njeruh FM, Ombui JN.(2002)

Onderstepoort J Vet Res. 2002 Dec;69(4):255-62.

Source

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Abstract

A retrospective study covering a period of 10 years (1990-1999) was carried out using post mortem meat inspection records at the Veterinary Department Headquarters at Kabete to determine the prevalence and economic importance of bovine fasciolosis in Kenya. Meat inspection records from abattoirs in 38 districts distributed over seven out of the eight provinces of Kenya were examined. Prevalence of fasciolosis was calculated as the number of cattle found to be infected with Fasciola, expressed as a percentage of the total number of cattle slaughtered. Using the average weight and market price of a bovine liver, the monetary loss occasioned by condemnation of Fasciola infected livers was calculated. A survey was also carried out at Dagoretti slaughterhouse complex in Nairobi to determine the relative occurrence of F. gigantica and F. hepatica in slaughtered cattle. Cattle slaughtered at Dagoretti slaughterhouse originate from all parts of the country. A total of 5,421,188 cattle were slaughtered in the seven provinces of Kenya during the 10-year period and 427,931 (8%) of these cattle were infected with Fasciola. The region with the highest prevalence of fasciolosis was Western Province (16%) followed, in descending order, by Eastem Province (11%), Nyanza Province (9%), Rift Valley Province (8%), Central Province (6%), Nairobi Province (4%) and Coast Province (3.5%). The total economic loss incurred by the country during the 10-year period as a result of condemnation of the infected livers was approximately US$2.6 million. The total annual economic losses during this period ranged from approximately US$0.2-0.3 million. The highest total economic losses for the 10-year period were recorded in Western Province (US$0.8 million) and Central Province (US$0.7 million). A total of 1584 cattle originating from five provinces of Kenya were slaughtered at Dagoretti slaughterhouse over a period of two months of which 147 (9.3%) were infected with liver flukes. All the liver flukes obtained from the infected livers were identified as F. gigantica. It is concluded that fasciolosis is prevalent in cattle in all provinces of Kenya, that it causes great economic losses as a result of condemnation of infected livers, and that F. gigantica is the main species of liver flukes affecting cattle in Kenya. Local climatic factors, cattle trade, rustling and population numbers, and the presence of the snail intermediate hosts are probably the main factors influencing the incidence of the disease in the various regions of the country.

PMID:

12625377
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