Vinueza Sierra Lenin, 2005

Summary

A study for establishing the neighbourhood (proximity) relationships between teniasis cases and porcine-cysticercosis-contaminated farms was carried out in 192 households in Southern Ecuador during years 2003 and 2004. The difficulty to appreciate the proximity on the ground constituted a confusion variable when determining the contamination source of Taenia solium carriers in a highly contaminated zone of cysticercosis. For this study spatial analysis methods (cluster, buffer and exposition effect) from Geographical Information Systems (GIS) were used. Porcine cysticercosis contaminated farms in clusters in places of dense population and farms in lineal grouping (possibly attributable to the presence of a road) were found. The influence of proximity of teniasis to porcine cysticercosis cases included within ratios of 250, 500, 750, and 1000 m in relation to total number of cases in the zone, had no significant differences. Risk values were low and their variation was minimal for each distance. Therefore, there are no sufficient arguments to demonstrate that Taenia carriers constituted the only contamination source of porcine cysticercosis. Dispersion of this disease cannot be explained only by the proximity of the teniasis cases household. GIS technology allowed to overcome the subjective appreciation of the proximity of the ground. Efficacy of the method depended to a great extent on the quality of the database.

Résumé

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Yes