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论著

四川省藏族牧区家犬棘球绦虫病流行病学调查研究(英文)

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摘要
目的 对四川省甘孜县达通玛藏族牧区家犬感染细粒棘球棘球绦虫和多房棘球棘球绦虫进行流行病学调查和评价感染风险因素。 方法 分别对甘孜县达通玛藏族牧区查龙、卡龙、大德和查扎等4乡的犬主进行问卷调查,了解家犬感染棘球绦虫的相关因素。剖检流浪犬,检测棘球绦虫感染率,并用此结果评价粪抗原?鄄ELISA方法。用该方法检测家犬感染棘球绦虫的阳性率,评价犬驱虫效果。用χ2 检验和方差分析对结果进行统计。 结果 2000年流浪犬棘球绦虫感染率为60.9%(14/23),其中细粒棘球绦虫感染率为26.1%(6/23),多房棘球绦虫感染率为34.8%(8/23)。粪抗原?鄄ELISA特异性为80.0%,敏感性为92.3%。家犬粪抗原?鄄ELISA阳性率平均为50%(290/580)。从2003年起,经每半年1次吡喹酮犬驱虫(5 mg/kg),2005年同一犬群粪抗原阳性率降为17.0%(99/580)。犬感染风险因素调查发现敞放犬粪抗原阳性率[40.4%(65/161)]明显高于半栓养犬[白天拴养夜晚放养的犬32.3%(109/337);夜晚拴养白天放养的犬29.2%(21/72)]及一直栓养的犬[20%(2/10)] (P<0.01);主人缺乏防治相关知识的犬[38.1%(121/318)]和不进行驱虫的犬[47.7%(92/193)],阳性率明显高于主人具有相关知识[28.6%(75/262)]和驱虫犬[20.4%(79/387)] (P<0.05 和 P<0.01)。粪抗原?鄄ELISA阳性率与犬的年龄、性别和饲养家畜的种类无关。 结论 四川省甘孜县达通玛藏族牧区是家犬两种棘球绦虫病流行区。粪抗原?鄄ELISA法可用于检测犬棘球蚴病。犬敞放和不对犬驱虫,以及牧民缺乏相关知识是造成家犬棘球蚴病传播、流行的重要原因。

关键词 棘球绦虫 流行病学 粪抗原 风险因子 控制 流行 中国
分类号

Epidemiology and Risk Factor Analysis for Canine Echinococcosis in a Tibetan Pastoral Area of Sichuan

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Abstract
Objective To determine the prevalence and evaluate the risk factors of canine echinococcosis based on a field survey of dog infections with Echinococcus granulosus and E. multilocularis in Chalong, Kalong, Dade and Chazha Townships in a district of Ganzi County, Sichuan Province, China. Method Questionnairing associated with the acquisition of canine echinococcosis was administered to dog owners. Stray dogs were examined post-mortem and rectal faeces at necropsy were collected to validate a coproantigen ELISA. Owned dogs were screened for Echinococcus spp. infection in faeces using the genus specific copro-ELISA and the effectiveness of dog treatment was assessed. Chi-square and one-way ANOVA were used for statistical analysis. Results The prevalence of Echinococcus spp. infection at necropsy in stray dogs was 60.9% (14/23) in 2000; E. multilocularis infection accounted for 34.8% (8/23) and E. granulosus for 26.1% (6/23). The specificity of the copro-ELISA was 80.0% and the sensitivity was 92.3%, compared with the results at necropsy. Fifty percent of owned dogs (290/580) tested was coproantigen positive at the beginning of the project in 2000, which decreased to 17% (99/580) in the same cohort of owned dogs after praziquantel treatment (5 mg/kg) at 6-monthly period from 2003 to 2005. Analysis for risk factors associated with coproantigen positive dogs showed that the never tethered

dogs had a higher rate（40.4%，65/161） than dogs tethered during the day （32.3%，109/337）, or tethered at night [29.2%（21/72）], or those always tethered [20%（2/10）]（P＜0.01）. Dogs that their owners lacked hydatid transmission knowledge[38.1%（121/318）]and did not have de-worming practice[47.7% （92/193）]had significantly higher copro-antigen positive rate than those dogs that their owners knew relevant knowledge[28.6%（75/262）]and were dewormed regularly[20.4%(79/387）]（P＜0.05 and P＜0.01）. There was no correlation between the prevalence and dog sex or age or the varieties of livestock that the owner raised. Conclusion Local dogs show high prevalence with both E. granulosus and E. multilocularis. The copro-ELISA can be used to detect infection of Echinococcus in dogs. Allowing dogs to roam，lack of the basic knowledge of hydatid disease transmission and no de-worming practice for dogs are significant factors for the transmission of canine echinococcosis.
Key words *Echinococcus* Epidemiology Coproantigen Risk factor Control Prevalence China

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