

EPIDEMIOLOGICAL ASPECTS AND RISK FACTORS OF TOXOCARIASIS IN A PEDIATRIC POPULATION IN SRI LANKA

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Abstract. This cross-sectional study, carried out over a period of 11 months, investigated the relationship between *Toxocara* seropositivity, socio-demographic and environmental variables in a pediatric population. Risk factors for *Toxocara* infection were assessed by direct interview of parent or guardian using a structured pre-tested questionnaire. Eosinophilia and presence of helminth eggs or protozoan cysts in a fecal smear were recorded. Diagnosis of *Toxocara* seropositivity in children was based on IgG *Toxocara* Microwell Serum Elisa Kits. The ELISA test was regarded as positive if the optical density was 0.3 units or above. Unadjusted and adjusted odds ratios were calculated to determine risk factors for disease. The proportion of children who were positive for *Toxocara* antibodies in the study population was 20%. Children being exposed to a puppy of less than 3 months at home, visiting a playground frequently, living in a poorly constructed house and dogs having access to playgrounds were significant risk factors on univariate analysis. Of these four variables, only the first three variables (OR 19, OR 4 and OR 3, respectively) remained significant risk factors on the multivariate model. Presence of eosinophilia in seropositive children was significantly higher than the seronegative group (77% vs 40%; $p < 0.001$). This study indicates that dogs contribute significantly to children being seropositive for toxocariasis in Sri Lanka. Implementation of public health programs specifically focused on anti-parasitic treatment of dogs is recommended.

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