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ABSTRACT

This study was conducted to assess the contamination of soil and the environmental load with *Toxoplasma gondii*-like oocysts from cats' faeces, which will also give an idea about the prevalence of Toxoplasmosis in cats. Also the study investigated the prevalence of the disease among humans in Red Sea State, Sudan.

The soil contamination and the disease in cats was investigated through examining cats' faecal samples from different areas of the State, for the presence of *Toxoplasma gondii*-like oocysts, using the improved modified McMaster Method. Thirty four (34%) out of the 100 cats' faecal samples examined were positive for the presence of *T. gondii*-like oocysts. A result indicating a wide spread contamination of environment with *T. gondii* oocysts, and a very high prevalence of Toxoplasmosis in cats.

In humans, the disease was investigated serologically, using Latex Agglutination tests. The overall prevalence was 44.4% (52 out of 107 persons), being 50% among women and 41.1% among men while all children examined randomly were negative for the presence of antibodies against *T. gondii*.

ملخص الأطو حة

أجريت هذه الدراسة لتقدير كمية التلوث في التربة والبيئة عامة بحويصلات طفيل المقوسات من براز القطط والذي يعطي أيضا فكرة عن نسبة وجود المرض (المقوسات) بين القطط بولاية البحر الأحمر.

هذه الدراسة أيضا شملت البحث عن مدى تفشى المرض وسط المواطنين بالولاية. تلوث التربة والبيئة درس من خلال فحص عينات براز القطط في مناطق مختلفة من الولاية لوجود الحويصلات الخاصة بهذا الطفيل باستعمال طريقة ماك ماستر المحسنة المعدلة. 34% من هذه العينات وجدت موجبة (+ve) لوجود حويصلات هذا الطفيل (34 عينة من 100 عينة) هذه النتيجة توضح ان التلوث واسع الانتشار في التربة والبيئة بهذه الحويصلات وهي الطور المعدي. كما توضح هذه النتيجة النسبة المرتفعة لوجود المرض وسط القطط وذلك إذا علمنا أنه ليس كل القطط المصابة تفرز هذه الحويصلات في برازها طيلة الوقت.

درس الأمر بين البشر في الولاية بالطرق السيرولوجية وكانت نسبة وجود المرض عامة 44,4% (52 عينة من 117) وكانت النسبة 50% وسط النساء و41,1% وسط الرجال ، بينما كانت كل العينات المأخوذة من الأطفال سالبة لوجود المرض (-ve).

معظم العينات كانت من مدينة بورتسودان وهي التي تحتوي على أكثر من 50% من سكان الولاية حسب الإحصاء السكاني للعام 1993م.