INTESTINAL TREMATODA OF STRAY DOGS AS ZOONOSES AGENTS IN BASRAH PROVINCE

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ABSTRACT

A total of 70 stray dogs (37 males and 33 females) were killed and dissected from various regions at Basrah province, during the period from May 1995 till May 1997.

An investigation infection rate with trematoda infection was 67.1% within intensity of trematoda infection 21.9%. These worms identified as a *Heterophyes heterophyes* 59.5%. *Metagonimus yokogawi* 17.1% and *Echinochasmus spp.* 10%.

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الخلاصة

ما مجموعه 70 كلباً سائباً (٣٧ ذكر و٣٣ أنثى) تم قتلها وتشريحها من مناطق مختلفة في محافظة البصرة، وذلك للفترة من مايس 1995 ولغاية مايس 1997.

سجلت نسبة إصابة 67.1% للمثقوبات مع شدة إصابة مقدارها 21.9. تم تشخيص هذه الديدان والتي سجلت نسب إصابة هي *Heterophyes heterophyes* 59.5%, *Metagonimus yokogawi* 17.1% and *Echinochasmus spp.* 10%.

INTRODUCTION

Dogs and cats are the natural hosts of the parasitic disease, like nematodes, cestodes and trematodes (1). It isn't always easy to tell if your dog has worms, unless the dog has a heavy infestation thus making the symptoms more obivous (2).

Parasites can cause a serious problem for all animal species; furthermore, some parasitic worms can spread from animals to humans, or spread to the habitate which cause a high scale for contamination habitate (2).

Dogs in rural area often hunt and eat objects that could be sources of parasitic infection, also, dogs that live in crowded conditions have a greater chance of parasitic infection through transfer to those in close proximity (3).

In the world there are many epidemiological studies for trematoda infection in dogs by examining feaces, but in Iraq and the world there were a few studies with area as a new record. For example, In Mosul (4) was recorded *Metagonimus yokogawi* in dog's intestine for the first time.

(5) Recorded *Heterophyes heterophyes* in one sample of stray dog in Turkey. While, (6) showed that the *Echinochasmus spp.* and *Heterophyes spp.* trematoda infection found in 157 adult stray dogs and 23 puppies in Egypt.

The aim of this study was to investigate the trematoda infection in stray dogs in Basrah province as apathogenic agents.

MATERIALS AND METHODS

During the period from May 1995 to May 1997 a total of 70 (37 males and 33 females) stray dogs were examined. Stray dogs were killed by shooting gun or by using strychnine sulphate tablets.

The abdominal cavity was opened a long the median line, the pyloric and illeocecal end of the intestine were legated at the pylorus at below.

The intestine was slit the entier length, submerged in water in black bottom container for 3-6 hrs, mucosa was stripped with large forceps.

Large adult worms and trematoda were collected, fixed in 10% formaline and examined under dissecting microscope. Cleared trematoda with lactophenol were examined after 1-2 days.

RESULTS AND DISCUSSION

Trematoda results of necropsy of 70 dogs in Basrah proince were obtained in table (1) below:

Parasite	No. dogs (Inf. Rate %)	No. worms (Intensity Inf.)
Trematoda	47 (67.1%)	1250(21.9)
H. heterophyes	28 (59.5%)	820 (29.2)
M. yokogawi	12 (17.1%)	380 (31.6)
Echinochasmus spp.	7 (10%)	50 (7.1)

In this table the percentage and intensity of infection of trematoda 67.1% and 21.9 respectively, with showing of it's species as *H. heterophyes, M. yokogawi* and *Echinochasmus spp.*The high infection rate were found at *H. heterophyes* (59.5%), while, the low was at *Echinochasmus spp.*(10%).

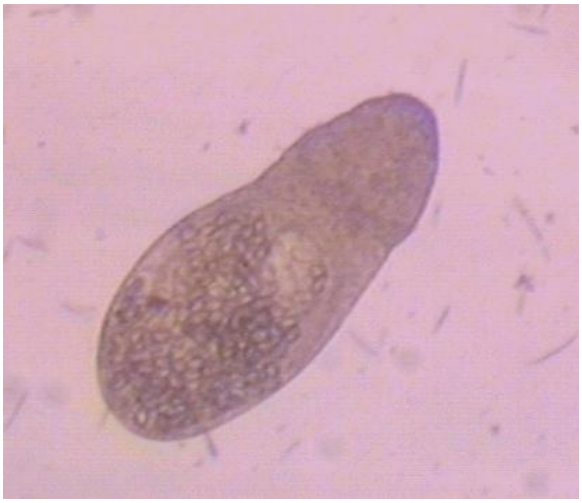
Samples were identified and classify with a diagnostic features which recognize as above trematodes, also, pictured with camera digital (picture: 1).

Dogs infected with trematoda in Basrah province make a high rick factor because sperad the infection and cause a contamination to the soil, water and vegatebles which are contact with human, so, becoming a potential threat for human and animal health and cause a sever symptoms and disease. Furthermore, transimitted to the intermediate host (snail) and sperad the infection to the habitat. Suggesting that environmental contamination may be a serious risk for human, mainly for children, so, the prevalence of these parasites was found and soil contamination may occur. In this study the percentage infection of trematodes in stray dogs was estimated by killing dogs and examined the intestine, furthermore, this study from fewer studies in Basrah city which recorded that dogs harbor trematodes in their intestine.

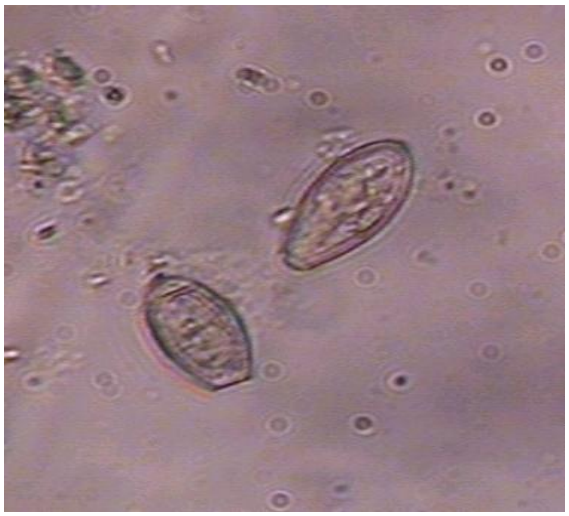
From many countries the percentage of infection with trematoda in dogs differe, in Ismailia province about 500 infested samples of dog's faeces 8.5% were infected with *H. heterophyes* (7).While, (8) showed that the percentage infection of 42 stray dogs necropsied in Turkey with trematoda, *M. yokogawi* was 9.5%.

(6) Recorded that the percentage infection with trematoda in 157 stray dogs necropsied was 26.8% in Giza distract at Egypt. (9) reported that the percentage infection of *M. yokogawi* was 2.6% when they examined 287 stray dogs in Yugoslavia.

In Basrah city, (10) recorded that the percentage infection of trematoda were 6.27%, 2.69% and 2.24% to *M. yokogawi, H. heterophyes* and *Echinochasmus perifoliatus* respectively when she examined 117 stray dogs, while, (11) reveled no trematodes eggs when examined (155) feacal samples from dog's intestine in above region.



(A)



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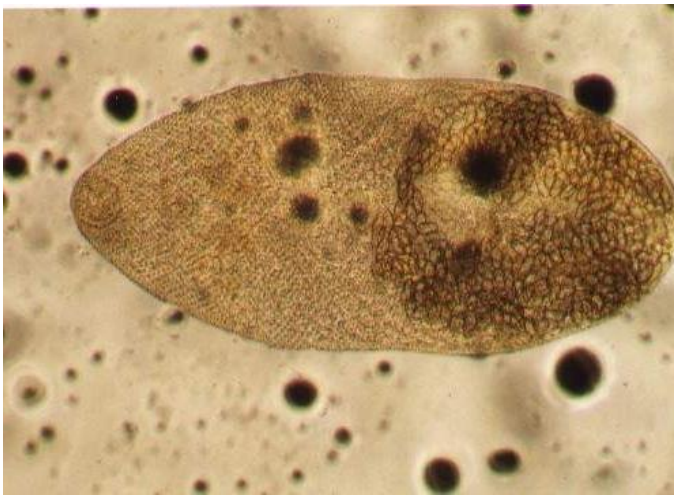
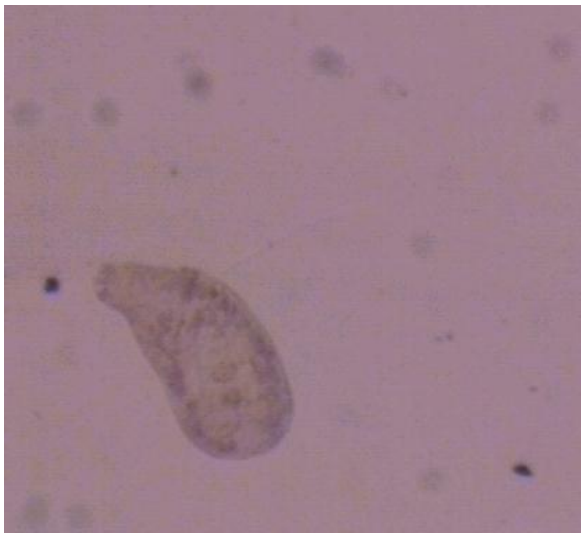


(C)



(D)

Picture: (1): Trematoda (adult worms). A: *Heterophyes heterophyes* (20X), B: Ova (40X), C: *Metagonimus yokogawi* (40X), D: *Echinochasmus spp*. (10X)

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