

SERO-EPIDEMIOLOGY OF TOXOPLASMOSIS IN SLAUGHTER WORKERS

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ABSTRACT

A sero-epidemiological study was made of detection of toxoplasmosis between slaughter workers in Basrah abattoir city, southern Iraq.

A total of (100) blood sample was collected with different ages between (20-50) years. The prevalence of toxoplasmosis was found between (45-48%).

INTRODUCTION

Toxoblasma gondii a single celled parasite which causes a disease known as toxoplasmosis, is an obligate intracellular parasite, produces a wide syndromes in human, land and sea mammals and in various birds species, this parasite found through the world, in united state for example, more than 60 million people were infected or harbor *T. gondii* in their bodies (without any symptoms). [1, 2]

Infestation of toxoplasmosis occurs by accidentally swallowing cat feces, eating contaminated raw or partly cooked meat, contaminated food with knives, cutting boards and others have had distribution or transsimitted the parasite between persons, drinking contaminated water with toxoplasma make a main way for transsimmeted this parasites [3, 4,5].

[6] *T. gondii* the most common cause of food-borne disease in the world, 225000 cases of toxoplasmosis are reported each year which result in 5000 death.

Toxoplasma gondii is a serious zoonotic disease that cause a sever, hydrocephalus, retinochoriditis and hepatosplenomegaly in women and their children, congenital infection [7]

The aims of the present study are make sero-epidemiological studies about toxoplasmosis in Basrah city between slaughter workers by using a serological detection.

MATERIALS AND METHODS

1- Selection area :

Basrah abattoir were selected for detection of toxoplasmosis between workers; situated in the center of Basrah city.

2- Selection samples:

The workers in Basrah abattoir were selected randomly as a cluster sampling technique described by [8].

3- Blood collection:

A blood sample was taken from member of the abattoir workers. The samples were sent to the laboratory at the clinical laboratory technology at Basrah technical institute for serological testing.

4- Serological test

A latex test was used as a serodiasnosis for detection of toxoplasmosis (Toxo cell, Biokit, Barcelona, Spain) latex particle agglutination test on slide for the qualitative and semi-quantitative determination for toxoplasma antibodies in serum.

RESULTS

The sample size of the population studied in abattoir area (100). As showed in table (1) the overall prevalence rates (as expressed by percentage of positive cases), a high prevalence 47%

Table (1): The overall prevalence of toxoplasmosis.

Number test	Number infect %	C.D. 95%
100	47 (47%)	45-48

In table (2) the prevalence rates for toxoplasmosis divided by ages, a low percentage rates were found among children 5 years 14%.

The significant age - specific increase in prevalence rates of toxoplasmosis with increasing age.

able (2): The distribution of toxoplasmosis infection with respect to age and sex.

Age (year)	No. test	No. infect	%
≥ 5	5	3	14
5-14	15	5	33.3
15-44	54	25	42.5
≥ 45	26	14	53.7
Total	100	47	47%

DISCUSSION

The results of the present study demonstrate show sero-epidemiology community based surveys are useful in assessing the level of exposure to selected toxoplasmosis zoonotic infections, as expressed by prevalence of seropositivity; such rate reflect both clinical and sub clinical (asymptomatic) infections.

In general, the highest prevalence rates in abattoir area, reflects the relatively high infection with toxoplasma gondii indicates contacts with animal especially cats. The rates of infection with toxoplasmosis reported in this study are higher than those reported in neighboring countries, 32.7% and 25% in Saudia Arabia and united Arab Emirates respectively [9].

The significant increase in the level of toxoplasmosis infection increasing with ages and area. [10] tested 150 serum sample form human by using IHAT and LAT tests and founded that the percentage of positive 45.33% and 39.33% respectively.

In conclusion, the present study has demonstrated the zoonotic infection, could plane a comprehensive package for control, such as control of cat's feces, detection and treatment human infection. Health education programs.

**دراسة مصلية وبائية عن انتشار مرض التوكسوبلازما بين العاملين في مجزرة البصرة-
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الخلاصة

تم اجراء دراسة مصلية وبائية عن انتشار داء التوكسوبلازما بين العاملين من مختلف الاعمار في مجزرة البصرة المركزية/ جنوب العراق.

تم جمع 100 عينة دم من العاملين قسم اعمارهم من 20-50 حيث وجدت النسبة المئوية للتوكسوبلازما بين 45-48%

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