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Serological Incidence of *Toxoplasmosis* in Basrah (Qurna)

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Abstract

toxoplasmosis is a parasitic infection caused by T.gondii. high occurrence in the community north region of Iraq, Basra, Qurna(15%). study(15%)infection. IgM antibody titers is high in titers of spread, more occurrence in farmers and workers in these areas, and low in pediatric and high age in urban areas. Patients with toxo IgM are recovering after the drug intake protocol.
Keywords: toxoplasmosis, T.gondii, Qurna, Basra

Introduction

Toxoplasmosis is a protozoan parasite that causes infection. Man livestock and even rodents may act as intermediate hosts for the infection. infection may be happened by many channels, firstly due to exposure to canin, (1-4). Human infestations in the region were recorded due to eating or contact with rodents and goats disease with the parasite[5]. The disease may also be transmitted by blood transfusion.
Intrauterine(congenital) transmission may occur.
In patients with secondary infection and positive cases for toxoplasmosis, 15-35% develop brain infection (7). The occurrence of toxoplasmosis ranges from 8--95% in different parts of the world. 7.5% in Scotkland[8], 50 % in USA[9], 55% in Kenya[10], 47% in Nigeria[11], 37% in Jordan[12], and 95.5% in Kuwait[13].

Methods and Materials:

This study was conducted in the North Region of Qurna District. Basra, Iraq. In Almosy 60% of the population in rural areas in close contact with livestock and cats. Records of primary health care showed equal; distribution between sexes. Across cross-sectional survey was conducted to estimate the seroprevalence of human toxoplasmosis in Qurna, North Basra of Iraq. 37.5% (IgG) in Qurna Center area[16], 51% in acute inactive (IgG) in Shaphy area and only 4% with acute, (active), infestation in the Thager area[17],

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especially (IgM). Five areas were randomly selected: Qurna center area or region, Shaphy Region, Thager Region, Mudaina Region and Sherish Region.

A total of 1464 sero were collected in the study (660) females and (80-4) makes (Table 1). A total of sampling blood collection, Eliza for IgG and IgM[20-21]as well as cassette IgG and IgM toxoplasma test. Chi-Square test and T. Test and ANOVA were used as appropriate P values were set to be <0.05 throughout the study.

Results

The results for toxoplasmosis in Qurna, North Basra location ,of Iraq in tables 1-6 and in the following account:

	Qurna		Shaphy		Thager		Mudaina		Sherish	
Age Years	Sex		Sex		Sex		Sex		Sex	
	F	M	F	M	F	M	F	M	F	M
1-11	23	23	25	25	18	20	22	22	66	48
12-20	20	20	25	25	24	16	22	26	70	50
21-31	20	20	25	2-1	20	19	22	26	76	44
32-45	20	20	25	24	19	20	22	26	70	50
45> <	14	14	25	21	21	19	22	20	76	43
Total	98	103	125	119	94	102	110	120	3582	235

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Table2 Total Samples infections:

Age (Years)	Male No.(%)	Female No.(%)	No.(%)
1-11	132 (9)	154 (10-5-1)	286 (19.5)
12-20	137 (9)	160 (11)	297 (20)
21-31	134 (9)	178 (12)	312 (21)
32-45	140 (9.5)	151 (10)	291 (20)
> 45 >	117 (8)	161 (11)	278 (19)
Total	660 (45)	804 (55)	1464 (100)

Table3: Seropositive of T Oxo IgG, IgM

Area	No.(%) IgG Positive		No.(%) IgM	
	Male	Females	Male	Females
Quran	29 (14)	24 (12)	1(2)	1(2)
Shaphyh	30 (12)	31 (13)	1 (2)	2 (3)
Thager	29 (15)	24 (12)	1 (2)	1(2)
Mediana	34 (15)	15 (6.5)	4(8)	1 (2)
Sharish	59 (10)	89 (19)	4 (3)	4 (3)

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Table4: TOXO IgG , IgM as Area location.

Area	Abtypes	No.of Serum tested	1-11	12-20	21-40	41-11
Qurna	IgG IgM	201 53	8(4) 0(0)	8(4) 0(0)	13(6) 2(4)	11(5) 0(0)
Shaphy	IgG IgM	244 61	6(2) 0(0)	6(2) 0(0)	15(6) 1(2)	21(9) 2(3)
Thager	IgG IgM	196 53	5(2.5) 1	7(3.5) 0(0)	10(5) 1(2)	21(8) 2(0)
Mudaina	IgG IgM	230 49	3(1) 0(0)	11(3) 0(0)	16(7) 1(1)	11(5) 1(2)
Sharish	IgG IgM	593 184	12(2) 2(1)	21(3.5) 2(1)	28(3)	40(8) 1(1)

Table 5: TOXO IgG, IgM to economic style.

Area	Ab Types	No(%) of positive Serum			
		Child	Student	Housewife	Workers
Quran Center	IgG M	5(2) 0(0)	8(4) 0(0)	19(9) 1(2)	21(10) 1(2)
Sharply	IgG M	1(0) 0(0)	7(3) 0(0)	29(12) 2(3)	24(10) 1(2)
Thayer	IgG M	3(1.5) 0(0)	15(10) 0(0)	18(9) 1(2)	1(2) 17(9)
Mudaina	IgG M	2(1) 0(0)	14(6) 0(0)	10(4) 1(2)	10(4) 1(2)
Sharpish	IgG M	6(1) 2(1)	70(5) 3(1)	72(12) 2(1)	72(12) 2(1)

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Table 6: Antibodies IgG and IgM in different location.

Area of Study	Ab tested		Ab tested	
	IgG	IgM	IgG	IgM
Quran Center	593	148	148	8
Shaply	244	61	61	2
Thager	196	53	53	3
Mudaina	230	49	49	2
Sharish	201	53	53	2

Discussion:

The results of the present study of toxoplasmosis in North Basra, Iraq indicate a rather comparable sero positive of inactive toxoplasmosis in these examined regions. These incidence rates are rather less than those recorded in different studies in Saudi areas (37.5%)[16] or the high incidence of 51% in other study in Saudi region or area[17]. In the present study, these results are comparable to other study of Kuwait region[8,13,22,23].

Also, this study showed the level of exposure to infestation workers, housewife and more obvious than children and students, and also affected of lifestyle urban or rural due to exposure to infestation.

In conclusion, toxo IgG levels of rather high occurrence in the community of the eastern retention location of Saudi Arabia. Active toxoplasmosis (acquired during pregnancy) is of rather low incidence like this study. Toxoplasmosis (IgM titer) is positive concern to children, and students in urban areas. Patients with active toxoplasmosis are to be treated and made aware of their situation. Healthy conditions in locations are high prevalence of active toxoplasmosis are to be more strictly imposed to decrease transmission of these infections.

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