



Seroprevalance of Torch Infection in Pregnant Women in Basra City Southern of Iraq

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Abstract

Background torch infection (toxoplasma gondii, rubella virus, cytomegalovirus, herpes simplex virus) the causative agent for congenital infections in infants and abortion in pregnant women. Objectives the goal of the study was to determine the rates of infection of the toxoplasmosis and viruses that cause abortion in pregnant women. Methods kit (torch) igm, elisa technique. Result: a total of 50 serological samples were collected from adult pregnant women from 2018 -10 to 2018-oct-12. The number of qurna samples was 25 positive infection counts 15 and the estimated infection was 15/25 which accounted for 60%.while the infection rate in abi al-khasib district of the total 25 samples of the number of infection 8 and estimated the proportion of infection 8/25, which constitutes 32% of the toxoplasmosis. the results of the current epidemiological study confirmed that the viruses that cause abortion in the qurnah& abe al-khasib district of rubella were 4of the 50 blood samples (serum) showing that the percentage of infection is4/50, which is 8% and the rate of infection of cytomegalovirus 8/50 which is 16% the results showed that herpes virus was more infected than the virus above 24/50 and that the percentage was estimated to be 48%. these results indicate that the most common percentage among pregnant women toxoplasmosis& herpes virus cytomegalovirus, rubella).(60%, 48%, 16%, and 8%, respectively. The results have been confirmed by using a technique elisa. Conclusion: we concluded from the study the two most common cause's abortion in pregnant women in basra city southern of Iraq t gondi 60%, herpes virus 48%

Keywords: TORCHT- Toxoplasmosis, R –Rubella C- Cytomegalovirus. H- Herpes simplex virus.

Introduction

Torch Means: Toxoplasma gondii-Rubella Virus-Cytomegalovirus-Herpes Simplex Virus infection. Toxoplasmosis isa parasitic disease caused by Toxoplasma gondii [1]Toxoplasmosis is usually spread by eating poorly cooked food that contains cysts, exposure to infected cat feces, and from a mother to a child during pregnancy if the mother becomes infected [1]. Rarely, the disease may be spread by blood transfusion [1].

It is not otherwise spread between people Causes many problems and severe consequences for fetal growth Up to half of the world's population is infected by toxoplasmosis, but have no symptoms [2]. Congenital toxoplasmosis is a specific form of toxoplasmosis in which an unborn fetus is infected via the placenta [3]. Rubella virus (RuV) is the pathogenic agent of the disease rubella, and is the cause of congenital

rubella syndrome when infection occurs during the first weeks of pregnancy.

Rubella virus is the only member of the genus Rubivirus and belongs to the family of Togaviridae, whose members commonly have a genome of single-stranded RNA of positive polarity which is enclosed by an icosahedral capsid [4,5]. Cytomegalovirus (CMV) is a common virus that can infect almost anyone. Once infected, your body retains the virus for life. Most people don't know they have CMV because it rarely causes problems in healthy people.

But if you're pregnant or have a weakened immune system, CMV is cause for concern. A woman who develops an active CMV infection during pregnancy can pass the virus to her baby, who might then experience signs and symptoms. For people with compromised immunity, especially due to organ transplantation, CMV infection can be fatal

[6] Herpes Simplex Virus infection is common. HSV-1 is common amongst children, transmitted non-sexually and presenting as herpes labialis, transmitted and causes genital herpes.[7,8] In almost 3 /4 The while HSV-2 is sexually of cases, genital herpes remain asymptomatic but spontaneous abortion and prematurity may occur in ongoing pregnancy[9, 10].HSV 2 causes almost 2/3 rd Of the cases of congenital herpes.[11]

Methods and Materials

Material Used

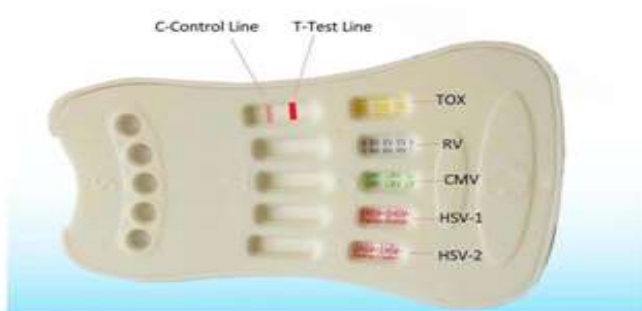
- The Patients serum
- Face mask
- Latex examination gloves
- Pipette (micro 10-100)μ
- Dilution reagents
- Kit (TORCH) IgM.
- ELISA KIT.

Methods

Step1

Bring the specimen and test component to room temperature if refrigerated or frozen.

Step2



Results

A total of 50 serological samples were collected from adult pregnant women from 2018 -10 to 2018-Oct-12. The number of Qurna samples was 25 positive infection counts 15 and the estimated infection was 15/25 which accounted for 60%.while the infection rate in Abi al-Khasib district of the total 25 samples of the number of infection 8 and estimated the proportion of infection 8/25, which constitutes 32% of the toxoplasmosis. The results of the current epidemiological study confirmed that the viruses that cause abortion in the Qurnah &

When ready to test, open the pouch at notch and remove the device .place the test device on a clean, flat surface.

Step 3

Be sure to label the device with specimen ID number. N each panel making sure that there are no air bubble. Immediate added.

Step 4

Fill the plastic dropper with specimen Holding the dropper vertically , dispense 1 drop (about 10 ul) of serum /plasma or 1 drop of whole blood (about 15 ul) into the center of the sample well i d 2 dropper (about 60-80 ul) of sample diluents to the sample well in each panel with bottle position vertically.

Step 5

Set up the timer.

Step 6

Read result at 10 minutes. Positive result may be visible in as short as 1 minute. Negative result must be confirmed at the end of the 15 minute only. However any result interpreted outside the 10-15 minute window should be considered invalid and must be repeated. Discard used device after interpreting the result.



Abe al-Khasib district of Rubella were 4of the 50 blood samples (serum) showing that the percentage of infection is4/50, which is 8% and the rate of infection of Cytomegalovirus 8/50which is 16% The results showed that herpes virus was more infected than the virus above 24/50 and that the percentage was estimated to be 48%. These results indicate that the most common percentage among pregnant women Toxoplasmosis & herpes virus Cytomegalovirus, Rubella) (60%, 48%, 16%, and 8%, respectively.

The Results have been Confirmed by using a Technique ELISA

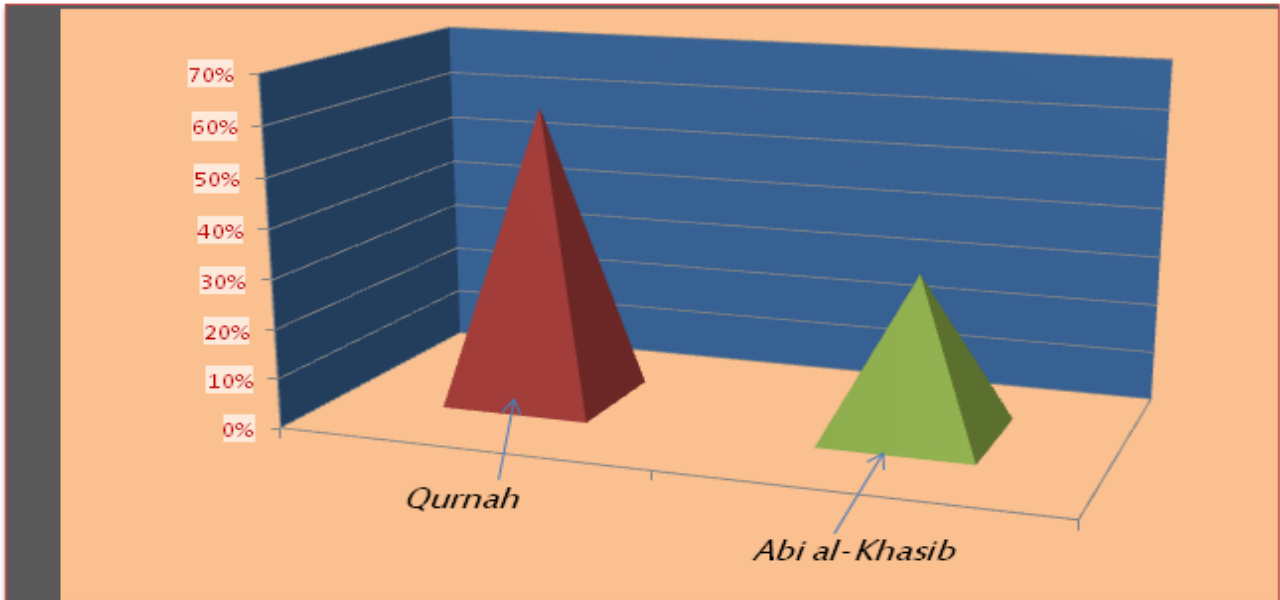


Diagram 1: Showing the percentage of infected pregnant women of toxoplasmosis in Qurnah&Abi al-Khasib district

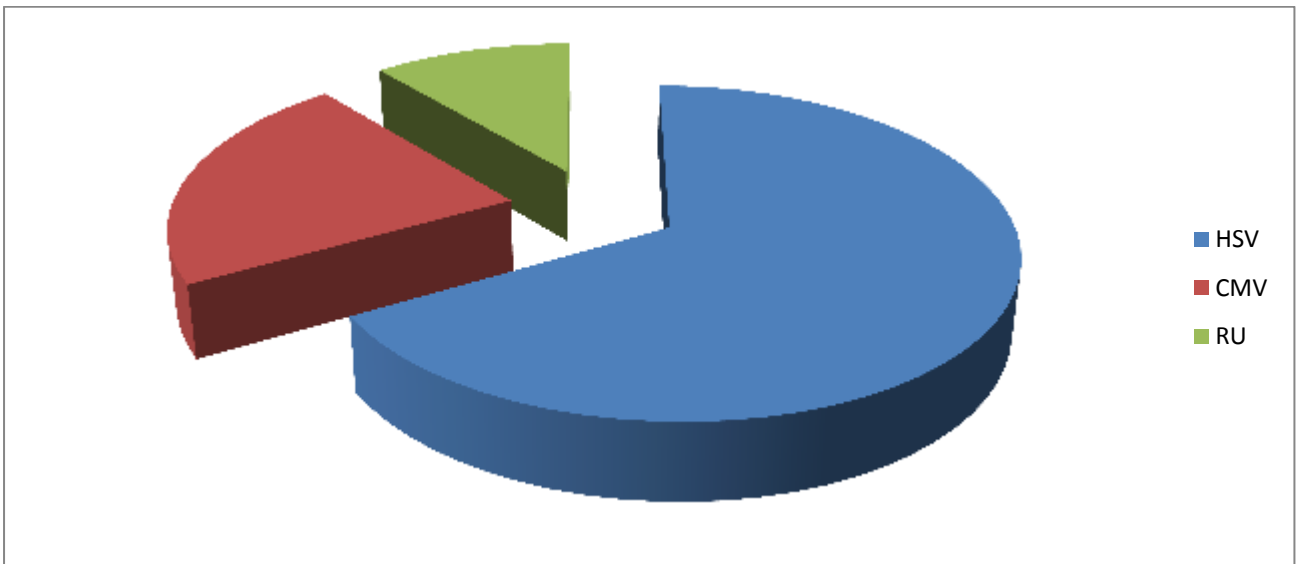


Diagram 2: showing the percentage of infected pregnant women of viral infection in Qurnah & Abi al-Khasib district

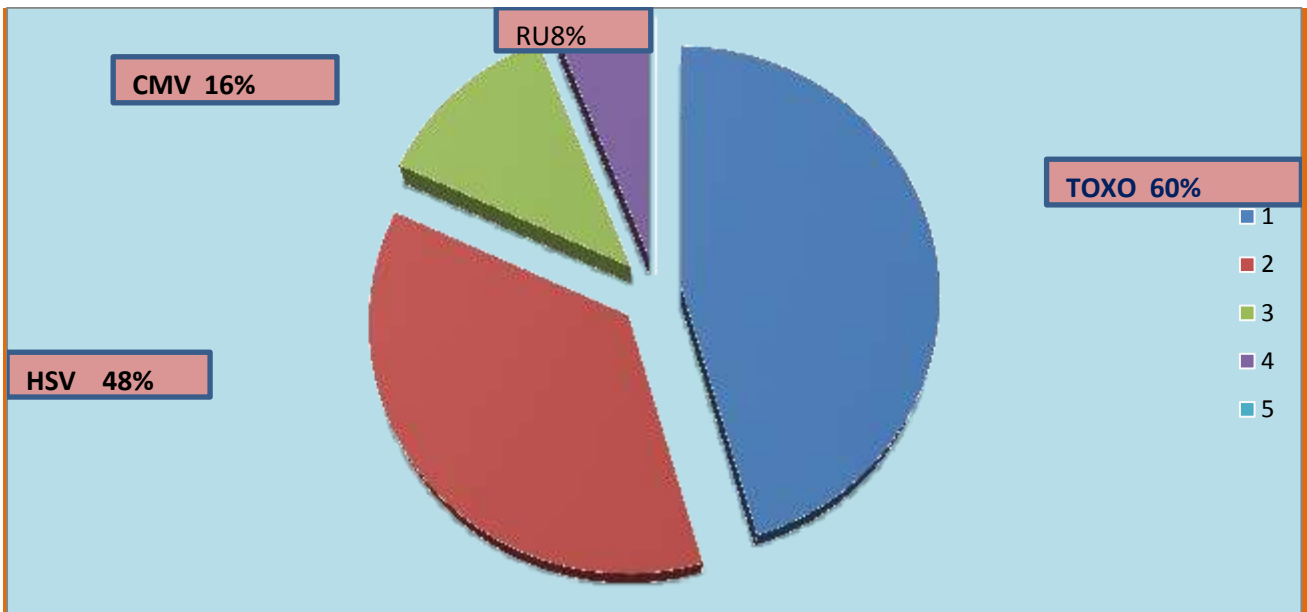


Diagram 3: showing the percentage of infected pregnant women of Viral infection in Qurnah&Abi al-Khasib district. Txoplasmosis

Discussion & Conclusions

This study Indicate the results obtained a higher infection of toxoplasmosis & viruses in Basra city southern of Iraq in two rural area. This study also showed a difference in health awareness between the two regions which explains why the other area is less likely to developed a toxoplasmosis. The disparity between the two regions is due to the high level of health and health care for pregnant women in Abu Al-Khasib because it is close to the city and the high rate of infection by toxoplasmosis in Qurna due to lack of health awareness because it is far from the center of the city. The study also explained that most viruses that cause abortion are herpes virus. We concluded from the study the two most common cause's abortion in pregnant women in Basra city southern of Iraq: T. gondi 60 % herpes virus 48%

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Recommendations

- Avoid close contact with cats and feces. Thus, avoiding cat litter boxes would be recommended.
- The MMR vaccination protects against rubella. Wash your hands often.
- Avoid contact with saliva and tears when you kiss a child.
- No sharing drinking or food out of the same glass as others. Sharing glasses and kitchen utensils can spread the CMV virus.[5][6].
- Be careful with disposable items. Do not have sex while symptoms are present (anal, genital or skin).
- Avoid kiss when there is a cold sore around the mouth.

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