

CASE STUDY ON TORCH INFECTION AND ITS MANAGEMENT WITH AYURVEDA, AS A INDIGENOUS MEDICINE

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ABSTRACT

The current case study is to evaluate the incidence of TORCH infection in two women's having an history of pregnancy loss and also with high delivery risk factors (HDRF) in Varad hospital. Duration: A prospective study was conducted over a period of 6 months from January 2019 to June 30. The aim of the present study is to confirm the presence of Ig M antibody for TORCH by a well known ELISA method in women pertaining with high delivery risk factors.

KEYWORDS: IGG, IGM, Ayurevda, etc.

INTRODUCTION

The TORCH test, is sometimes known as the TORCH panel, that is placed in the category of blood tests commonly called as Infectious-Disease Antibody Tests (IDAT)^[1] The TORCH test help in the count of the antibodies against a specific group of infectious diseases and measures their level of concentration in the blood. Toxoplasmosis, Other infections, Rubella, Cytomegalovirus (CMV), and Herpes simplex virus (HSV), are the main infections pertained in the by an woman during the time of the of pregnancy with disastrous consequences for the coming infant. All these are grouped together because they can cause a cluster of symptomatic birth defects in new-borns, collectively names as the TORCH syndrome.^[2] Rahway have suggested that this classification is too limiting and several additional infectious agents should be considered in the other category, such as enteroviruses, Borrelia burgdorferi (the cause of Lyme disease), and, of course, human immunodeficiency virus HIV^[3] A positive Ig G antibody test is usually a sign of past-exposure to the TORCH agent and is not a marker for current active infection. The detection of Ig M antibody is more difficult, and false negative and false positive results may occur.^[4] Toxoplasmosis is caused by Toxoplasma gondii, and is found in human worldwide, a parasite that the mother can acquire from handling infected cats, drinking unpasteurized milk, or eating contaminated meat. The infection is carried to the infants via the mother's placenta, and can cause infections of the eyes or central nervous system. The later in pregnancy that the mother is

infected, the higher the probability that the fetus will be infected. On the other hand, toxoplasmosis early in pregnancy is more likely to cause a miscarriage or serious birth defects.^[5,6]

CASE

We present here a case study of a 2 women' suffering from the TORCH infection which was successfully treated with the help of Ayurvedic remedy. A prospective study was done from January 2019 to June 2019 on patients who had attended to the outpatient department (OPD) of department of Obstetrics and Gynecology in Varad hospital in majalgaon, Maharashtra. A total of 2 women's were investigated which were householder by the profession. Both the cases had the regular intercourse and slight dyspareunia and proper knowledge regarding .Cases were included by the previous history of having 1 single pregnancy loss in case 1 and 2 pregnancy loss in case 2, intrauterine growth retardation, intrauterine deaths, preterm labour, early neonatal death and congenital malformation due to the absence of cardiac activity and presence of empty fetal sac in last three years. Family history showed all family members were healthy. Regular menses in both cases were 4-5/28-30 days with no clots or dysmenorrhea was detected in past history of the cases. From each woman 3 ml of venous blood was collected in a container with strict aseptic precautions. The serum was used for serological evaluation for Ig M antibodies for TORCH infections according to manufacturer's instructions with the help of the ELISA techniques.^[7] TORCH index of

each case was calculated by dividing the value of each sample by calibrator values and TORCH M index of 1.0 or greater was considered positive for antibodies.^[8]

RESULTS

Serological reports of Case 1 are shown in Table 1.
 Serological reports of case 2 are shown in Table 2.

Table-1.

Sr.No	Torch 10 profiles(IgG&IgM)	Obtained value	Range
01	Toxoplasma gondii IgG antibody	2.60	0.7-1.3
02	Toxoplasma gondii IgM antibody	0.37	0.8-1.2
03	Rubellavirus IgG antibody	2.54	0.7-1.3
04	Rubellavirus IgM antibody	0.31	0.8-1.2
05	Cytomegalovirus IgG antibody	2.38	0.8-1.2
06	Cytomegalovirus IgM antibody	0.42	0.8-1.2
07	Herpeneds simplex virus 1 IgG antibody	2.18	0.8-1.2
08	Herpeneds simplex virus 2 IgG antibody	0.32	0.8-1.2
09	Herpeneds simplex virus 1 IgM antibody	0.36	0.8-1.2
10	Herpeneds simplex virus 2 IgM antibody	.016	0.8-1.2

Table-2.

Sr.No	Torch agent	Obtained value	Refrence
01	Toxoplasma gondii IgG antibody	0.46	0.7-1.3
02	Toxoplasma gondii IgM antibody	0.20	0.8-1.2
03	Rubellavirus IgG antibody	2.61	0.7-1.3
04	Rubellavirus IgM antibody	0.17	0.8-1.2
05	Cytomegalovirus IgG antibody	2.70	0.8-1.2
06	Cytomegalovirus IgM antibody	0.24	0.8-1.2
07	Herpeneds simplex virus 1 IgG antibody	2.54	0.8-1.2
08	Herpeneds simplex virus 2 IgG antibody	0.24	0.8-1.2
09	Herpeneds simplex virus 1 IgM antibody	0.26	0.8-1.2
10	Herpeneds simplex virus 2 IgM antibody	.033	0.8-1.2

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Test Name	Obtained Value	Units	Bio. Ref. Intervals(Age/Gender specific)
TORCH 10 PROFILE (IgG&IgM)			
Toxoplasma gondii IgG Antibody	0.46	S/Co	<0.7 : Negative 0.7 - 1.3 : Borderline >1.3 : Positive
Toxoplasma gondii IgM Antibody	0.20	S/Co	<0.8 : Negative 0.8 - 1.2 : Borderline >1.2 : Positive
Rubellavirus IgG Antibody	2.61	S/Co	<0.7 : Negative 0.7 - 1.3 : Borderline >1.3 : Positive
Rubellavirus IgM Antibody	0.17	S/Co	<0.8 : Negative 0.8 - 1.2 : Borderline >1.2 : Positive
Cytomegalovirus IgG Antibody	2.70	S/Co	<0.8 : Negative 0.8 - 1.2 : Borderline >1.2 : Positive
Cytomegalovirus IgM Antibody	0.24	S/Co	<0.8 : Negative 0.8 - 1.2 : Borderline >1.2 : Positive
Herpes Simplex Virus 1 IgG	2.54	S/Co	<0.8 : Negative 0.8 - 1.2 : Borderline >1.2 : Positive
Herpes Simplex Virus 1 IgM	0.24	S/Co	<0.8 : Negative 0.8 - 1.2 : Borderline >1.2 : Positive
Herpes Simplex Virus 2 IgG	0.26	S/Co	<0.8 : Negative 0.8 - 1.2 : Borderline >1.2 : Positive
Herpes Simplex Virus 2 IgM	0.33	S/Co	<0.8 : Negative 0.8 - 1.2 : Borderline >1.2 : Positive

Method : ELISA
 Result rechecked and verified for abnormal cases
 Laboratory is NABL Accredited

*** End Of Report ***

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Figure 1 Serological report of TORCH infection Case 1

DISCUSSION

TORCH screening is now widely promoted by the clinical practitioners investigating suspected cases of congenital and perinatal infection. There is concern that such requests are appropriate and should be attended more specifically.^[5] It is evident that maternal infections play a critical role in pregnancy loss and their occurrence in patients with HDRF looks as an important factor in detaining the observations. Persistence of encysted forms the *T. gondii* in chronically infected uteri, and their subsequent gets damaged during placentation leading to the infection of the baby in the first trimester and often to recurrent miscarriages.^[6] In the present study *T. gondii*, which one of the etiological agent in recurrent pregnancy loss was procured in about 39% pregnant women with HDRF, which is similar to what has been obtained earlier.^[9] Congenital transmission of *T. gondii* is known to occur during the acute phase of maternal infection and the Ig M antibodies are evaluated in the maternal sera.^[10]

Management of TORCH with Ayurveda

Ayurvedic treatment was started with seven days authentic purgation therapy. The different herbal drugs used in the treatment of the Patient were Shatavari(asaparagus racemosus), Ashoka (saraca indica), Ashwagandha (withania somnifera), Amalaki (Embilica officinalis), Vidari (pueraria tuberosa), Sariva (Hemidesmus indicus), Guduchi (Tinospora cordifolia), Katakari(Solanum xanthocarpum), Dalchini (Cinnamomum zeylanicum), Pimpali (piper lomgum), Bruhati (Solanum indicum), Amalaki(Phyllanthus emblica), Manjista(Rubia cordiforia). When these were given in different dosage forms the conceived and regular antenatal care check-up with regular USG showed wellbeing of both growing fetus and mother. She delivered a healthy full term normal male baby weighing 2600gm with no post-delivery complications Different drugs can be used as an individual or as an in combination to cure the disease. The given below are two main ayurvedic medicines used in the treatment of the disease shown in Fig.3.

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Test Name	Obtained Value	Units	Bio. Ref. Intervals(Age/Gender specific)
TORCH 10 PROFILE (IgG&IgM)			
Toxoplasma gondii IgG Antibody	0.46	S/Co	<0.7 : Negative 0.7 - 1.3 : Borderline >1.3 : Positive
Toxoplasma gondii IgM Antibody	0.20	S/Co	<0.8 : Negative 0.8 - 1.2 : Borderline >1.2 : Positive
Rubellavirus IgG Antibody	2.61	S/Co	<0.7 : Negative 0.7 - 1.3 : Borderline >1.3 : Positive
Rubellavirus IgM Antibody	0.17	S/Co	<0.8 : Negative 0.8 - 1.2 : Borderline >1.2 : Positive
Cytomegalovirus IgG Antibody	2.70	S/Co	<0.8:Negative 0.8-1.2:Borderline >1.2:Positive
Cytomegalovirus IgM Antibody	0.24	S/Co	<0.8:Negative 0.8-1.2:Borderline >1.2:Positive
Herpes Simplex Virus 1 IgG	2.54	S/Co	<0.8 : Negative 0.8 - 1.2 : Borderline >1.2 : Positive
Herpes Simplex Virus 1 IgM	0.24	S/Co	<0.8 : Negative 0.8 - 1.2 : Borderline >1.2 : Positive
Herpes Simplex Virus 2 IgG	0.26	S/Co	<0.8 : Negative 0.8 - 1.2 : Borderline >1.2 : Positive
Herpes Simplex Virus 2 IgM	0.33	S/Co	<0.8 : Negative 0.8 - 1.2 : Borderline >1.2 : Positive

Method : ELISA
Result rechecked and verified for abnormal cases
*** End Of Report ***
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Figure 2 Serological report of TORCH infection Case 2



Figure 3: Ayurvedic Drug Sample.

CONCLUSION

As a conclusion recurrent abortion due to TORCH infection in this woman was managed with Ayurvedic

treatment such as detoxification, herbal decoctions, tablets AND local procedures*. In present case, patient became pregnant and delivered full-term healthy baby.

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Conflict of Interest: Authors declared that there are no conflicts of interest.

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