



AWARENESS OF ANTENATAL MOTHERS ABOUT TORCH INFECTIONS

Nursing

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ABSTRACT

Descriptive survey research was carried to find out awareness of antenatal mothers on TORCH infections. Data was collected from 60 antenatal mothers who were attending OPD in a selected GMH, Tirupati, AP. Pretested structured interview schedule was used to collect the data. Data was analysed with SPSS 20 version. Findings of the study were most of the antenatal mothers 53(88.30%) of the had inadequate knowledge, 5(8.30%) of them have moderate knowledge, 2(3.30%) of them possess adequate knowledge on prevention of TORCH infections. The study findings emphasize to create awareness in antenatal mothers through various health education modalities to adapt preventive actions to avoid infections and adverse foetal outcomes.

KEYWORDS

Awareness, TORCH Infections, Antenatal Mothers, Health Education

INTRODUCTION

The TORCH infections are important groups of organisms which are initially in apparent, asymptomatic, and difficult to diagnose on the clinical ground during pregnancy but have the potential to cause bad obstetrical outcome in the form of congenital anomalies, oligonucleotides, FGR (fetal growth restriction), IUFD (Intrauterine fetal death), recurrent pregnancy loss (RPL), and stillbirth. The acronym TORCH was coined by immunologist Andre Nahmias. TORCH is an acronym which stands for toxoplasmosis, other agents, rubella, cytomegalovirus (CMV), and herpes simplex virus (HSV) infection. The majority of TORCH infections cause mild maternal illness, but the fetal consequences are serious. Treatment of maternal infection frequently has no impact on fetal outcomes. Early recognition of maternal disease and fetal monitoring once the disease is recognized are vital. Knowledge of these diseases can help mothers to take preventive measures to avoid these infection and adverse fetal outcomes.

Toxoplasmosis in human beings is caused by *Toxoplasma gondii*, an intracellular protozoan parasite, that is transmitted through contaminated food or water and under cooked meat. The incubation period is 5–23 days after ingesting the cysts. The infected women are usually asymptomatic, and during pregnancy, they may undergo pregnancy loss, stillbirth, and intrauterine malformations in the fetus.

Rubella infection is transmitted from person to person by tiny droplets in air and mother to child through placental transfer. This disease lasts for 1–5 days and the incubation period is 2–3 weeks. It usually presents as a mild or asymptomatic infection in children and adults. However, the virus may cross the placenta and could result in miscarriage, fetal death, or an infant with serious birth defects including hearing impairment, cataracts, and cardiac defects, collectively known as congenital rubella syndrome.

CMV is ubiquitous and species specific. Human beings are the reservoir hosts for this virus and the viruses are transmitted by direct contact with saliva, urine, and genital secretions. In pregnant women, the transmission is by direct contact with infected urine or saliva from young children or through sexual activity. The incubation period of CMV infection ranges between 4 and 12 weeks. In neonates, the symptoms include intrauterine growth retardation, microcephaly with intracranial calcification, hepatosplenomegaly, jaundice, chorioretinitis, thrombocytopenic purpura, and anemia. The major childhood disabilities like loss of vision, hearing, and cognitive impairment are also due to CMV infection.

HSV is the most common sexually transmitted viral disease worldwide. HSV1 is transmitted during childhood by nonsexual contacts, while HSV2 is always transmitted sexually and is the major cause of genital herpes. Incubation period of herpes ranges between 4 and 21 days. In more than 75% of cases, primary genital HSV infection remains asymptomatic. In newborns, this infection remains a major cause of morbidity and mortality. Genital herpes infection during pregnancy may lead to spontaneous abortion, prematurity, or congenital and neonatal herpes (1). Women should be aware of preven-

tive measures against congenital infections transmitted from mother to the embryo, fetus, or baby during pregnancy or childbirth.

OBJECTIVES

- To determine awareness of antenatal mothers regarding prevention of TORCH infections during pregnancy
- To find out the association between knowledge scores regarding prevention of TORCH infections during pregnancy among antenatal mothers with selected demographic variables

METHODOLOGY

Survey approach was adapted to conduct the study. The study was carried out in antenatal OPD, Government Maternity Hospital, Tirupati. Sample size was 60. Pretested interview schedule was used to collect the data from the antenatal mothers. Content validity of the tool. Reliability of the tool was established. Pilot study was done and it was found suitable to carry out the study. Data was gathered in the month of August-Sept 2023. Data was analysed with SPSS 20 version.

RESULTS AND DISCUSSION

Demographic profile of respondents

The Majority 34 (56.7%) belongs to the age group of 20-24 years, all of them educated, most of the sample (66.7%) were Hindus, nearly one fourth of the sample monthly income of the family was found to be Rs10000-20000/., most (31.75%) of the respondents husbands occupation was agriculture. Considerable percentage (66.70%) of the sample were primi gravida mothers. As per the gestational age (20.00%) were 1-12 weeks, 25% of them were 13-20 weeks and 30% of antenatal mothers were 21-30 weeks and remaining antenatal mothers were between 30-40 weeks of gestation.

Table-1 Overall knowledge of antenatal mothers regarding TORCH infections

S.No	Level of Knowledge	Frequency	Percent
1	Inadequate	53	88.30
2	Moderate	5	8.30
3	Adequate	2	3.30
	Total	60	100.00

Table 1. shows most of the antenatal mothers 53(88.30%) of the had inadequate knowledge, 5(8.30%) of possess moderate knowledge, 2(3.30%) of hold adequate knowledge about various aspects of TORCH infections. The findings are correlating with results of Vina Anand Soundade (2) study where majority of the antenatal mothers had poor score (58%), 31% average score, 11% good score and the study of Jessie Angel Dayna, Shraddha Patel (3) where 58 (96.66%) of antenatal Mothers had Poor level (0-10 score) of knowledge on TORCH infections during pregnancy, 02 (3.33%) of Antenatal Mothers had average (11-20 score) level of knowledge on TORCH infections during pregnancy and no one had good knowledge (21-30) on TORCH infections during pregnancy. Akoijam Mamata-Jaspreet Kaur Ishwar Swami Hemant Sehrawat Ms. Shalu Sharma (4) study result showed that the woman's of urban area have 27% poor

knowledge, 68% average knowledge and 5% of good knowledge regarding TORCH infection and it also revealed that women's of rural area have 80% have poor knowledge, 19% have average knowledge and 1% of good knowledge regarding torch infections. Hence we conclude that women's of rural area have poor knowledge and urban areas have average knowledge regarding the TORCH infection. Latha.P, Karthi. R.R. Karvendhan et.al. (5) The findings disclosed that majority of mothers 35(70%) had moderately adequate knowledge and 10(20%) had adequate knowledge and 5(10%) only having inadequate knowledge regarding TORCH infections.

Table 2 Awareness about meaning of TORCH infections among antenatal mothers

S.No	Level of knowledge	Frequency	Percent
1	Inadequate	54	90.00
2	Moderate	5	8.30
3	Adequate	1	1.70
	Total	60	100.00

Table 2 explains nearly 54 (90%) of sample had inadequate knowledge, 5(8.30%) had moderate knowledge, and only 1(1.70%) of have adequate knowledge on meaning of TORCH infections

Table 3. Awareness on Toxoplasmosis

S.No	Level of knowledge	Frequency	Percent
1	Inadequate	52	86.70
2	Moderate	7	11.70
3	Adequate	1	1.70
	Total	60	100.00

Table 3 describes majority (86.70%) of sample had inadequate knowledge and 7 (11.70%) had moderate knowledge on Toxoplasmosis.

Table 4: Awareness on Rubella Infections

S.No	Level of knowledge	Frequency	Percent
1	Inadequate	39	65.00
2	Moderate	18	30.00
3	Adequate	3	5.00
	Total	60	100.00

Table 4 illustrates about 36 (65.00%) of sample had inadequate knowledge, 18(30.00%) of them had moderate knowledge, and only 3(5.00%) of them had adequate knowledge, on Rubella infections.

Table 5: Level of Knowledge on Cytomegalovirus

S.No	Level of knowledge	Frequency	Percent
1	Inadequate	42	70.00
2	Moderate	14	23.30
3	Adequate	4	6.70
	Total	60	100.00

Table 5 displays 42 (70.00%) of sample had inadequate knowledge, 14(23.30%) of them had moderate knowledge, and only 4(6.70%) of them had adequate knowledge on Cytomegalovirus viral infections.

Table 6: Level of Knowledge on Herpes simplex Virus

S.no	Level of knowledge	Frequency	Percent
1	Inadequate	51	85.00
2	Moderate	8	13.30
3	Adequate	1	1.70
	Total	60	100.00

Table 6 outlines 51(85.00%) of sample had inadequate knowledge, 8(13.30%) of them had moderate knowledge, and only 1(1.70%) of them had adequate knowledge on Herpes Simplex viral infections.

Table No: 7. Level of Knowledge on Other viral Infections

S.No	Level of knowledge	Frequency	Percent
1	Inadequate	55	91.70
2	Moderate	3	5.00
3	Adequate	2	3.30
	Total	60	100.00

Table 7 draws out 55(91.70%) of them had inadequate knowledge, 3(5.00%) of them had moderate knowledge, 2(3.00%) of them had

adequate knowledge on other viral infections.

Table 8: mean, standard deviation about awareness on various aspects of TORCH infections.

S.No	Factors	Mean	Std. Deviation
1	Knowledge on meaning of TORCH infections	1.97	0.61
2	Knowledge on Toxoplasmosis	2.67	0.97
3	Knowledge on Rubella	4.05	1.31
4	Knowledge on Cytomegalovirus	1.83	1.18
5	Knowledge on Herpes simplex Virus	2.48	0.98
6	Knowledge on Other viral Infections	2.67	0.77

Table 8 portrays that awareness of respondents are high in the area of rubella infection and low on the meaning of TORCH infections.

Association between awareness of antenatal mothers with selected demographic variables

Significant association was found between age (chisquare 19.945, p<0.001). Education (chi square 63.47 at p< 0.001) at 0.01 level. There was no significant association was found between religion, income of the family, Hasband occupation, Type of dietary pattern, gestational age, gravid, antenatal visits, sources of information with the awareness of antenatal mothers

CONCLUSION:

Antenatal mothers understanding about TORCH infections and its effects on foetus was found to be deficient. Hence the study results calls for health education programs on prevention of TORCH infections in antenatal mothers.

REFERENCES

1. Baghel S, Inamdar SA. TORCH Infection and Its Influence on High-risk Pregnancy. J South Asian Feder Obst Gynaecol 2020;12(6):376-382.
2. Vina Anand Soundade (2021); To assess the effectiveness of structured teaching programme on knowledge regarding prevention of torch infections during pregnancy among antenatal mothers attending antenatal opds of selected hospitals *int. j. of adv. res.* 9 (jul), 401-407] (issn 2320-5407). www.journalijar.com.
3. Jessie Angel Dayna, Shraddha Patel. A Study to Evaluate the effectiveness of Structured Teaching Programme on knowledge regarding "Torch" infections during pregnancy among Antenatal mothers in a selected villages of Mehsana district. Asian J. Nursing Education and Research. 2019; 9(4):512-514. Available on: <https://ajner.com/AbstractView.aspx?PID=2019-9-4-10>.
4. Akojiam Mamata-Jaspreet Kaurishwar Swami Hemant Sehrawat Ms. Shalu Sharma knowledge regarding torch infection among women between rural and urban area: comparative study. global journal for research analysis ,2018,7(6): 99-101. ISSN.2277-8160.
5. Latha.P, Karthi.R.R. Karvendhan et.al. Assess the knowledge on TORCH infection among antenatal mothers at selected antenatal clinics in Villupuram district with a view to develop information booklet regarding TORCH infection. Gal Int J Health Sci Res. 2020; 5(4): 76-81. Website: www.gijhsr.com.
6. Shrivastava G, Bhatambare G S, Patel K B. Seroprevalance of toxoplasma, rubella, CMV and HSV infection in pregnant women in central India. Int J Health Sys Disaster Manage. 2014 Jul-Sep; 2 (3) :166-169.