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A Study On Sexually Transmitted Infections In Pregnancy And Its Fetomaternal Outcome A Study At Government General Hospital, Kadapa.

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Abstract:
Introduction
The term sexually transmitted diseases refers to a variety of clinical syndromes and infections caused by pathogens that are acquired and transmitted through sexual activity. Sexually transmitted diseases have significant prevalence in general population as well as pregnant women. Changes during pregnancy such as relative immunosuppression and anatomical and hormonal modifications may affect the course of sexually transmitted infections in pregnancy. Pregnancy modifies the manifestations of many STIs and presents unique problems for diagnosis and management.
Aim:
To study on sexually transmitted infections in pregnant women and its fetomaternal outcome.
OBJECTIVES:
1.To know about the clinical presentation of the sexually transmitted infections in pregnancy.
2.To study the fetomaternal outcome in pregnant women affected with sexually transmitted infections.
MATERIALS AND METHODS:
This is a prospective study of 102 pregnant women with sexually transmitted infections, attending Government General Hospital, Kadapa for a study period of 18 months from February 2021 to July 2022.
Inclusion criteria:
1. *All pregnant women coming to antenatal OPD with complaints of sexually transmitted infections viz., pain abdomen, vaginal discharge, swellings in genital region, genital ulcers.*

Exclusion criteria:
1. *Parturients who are not willing to give consent.*

RESULTS & OBSERVATIONS
In present study maximum i.e,39 (38.2%) cases were belongs to 16-20 years age group followed by 21-25 years (30.4%) and 26- 30 years (25.5%). Minimum cases found 36-40 years age group i.e. 1%. Majority of study subjects were illiterate (51.9%) followed by high school educated (32.3%) and graduated (8.9%). 6.9% were educated up to primary school.
DISCUSSION
The present study was conducted among 102 pregnant mothers to study on sexually transmitted infections in pregnant mothers and its feto-maternal outcome. STIS/reproductive tract infections (RTIs) are a major public health problem. STIs and other genital tract infections have been associated with several adverse pregnancy outcome including abortions, still births, preterm deliveries, LBW, postpartum sepsis, neonatal pneumonia, neonatal blindness and congenital infections.
In current study maximum pregnant women were belongs to 16-20 years age group (38.2%) followed by 21 -25 years (30.4%) and 26-30 years (25.5%).This is in conformance with the study done by ***Barney OJ et al[6]****.* ***Shah et al[7]*** *also found that the estimated prevalence of STIs reduced with advanced age. This relatively younger age group in antenatal women in India is due to early age of marriage and subsequent exposure to sexually transmitted agents from their husbands.*

Key Words: *Sexually Transmitted Infections, Pregancy, Fetal and maternal outcome.*

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I. INTRODUCTION

The term sexually transmitted diseases refers to a variety of clinical syndromes and infections caused by pathogens that are acquired and transmitted through sexual activity. Sexually transmitted diseases have significant prevalence in general population as well as pregnant women. Changes during pregnancy such as relative immunosuppression and anatomical and hormonal modifications may affect the course of sexually transmitted infections in pregnancy. Pregnancy modifies the manifestations of many STIs and presents unique problems for diagnosis and management.

The WHO estimated about 127.2 million and 86.9 million new cases of STI especially those of chlamydia trachomatis and gonorrhea respectively, globally in 2016. In women between ages of 15-49 years, the estimated prevalence of STI was 3.8% for Chlamydia trachomatis and 0.9% for Nisseria Gonorrhea. The highest prevalence for gonorrhea was reported from Africa Region where as for chlamydia, it was from the Americas[1]. 50% of the new cases of STIs occur in South East Asia. STIs most commonly affect the people between 15 to 44 years of age, most economically productive age.

Many STIs are asymptomatic or people are reluctant to seek health care due to stigma attached to it. Women of child bearing age are at a particular risk of sequelae from STIs due to the affect of many STIs on their reproductive health. Reported disease rates underestimate the true incidence and prevalence of infection because the majority of STDs are without any symptoms and underreported[2]. STIs have far-reaching public health consequences on both the sexual and the reproductive health of individuals, as well as long-term healthcare costs to the community. Because of drastic increase in reportable STI rates with resultant reproductive health consequences, an STI National Strategic Plan was developed with actionable goals, plans, objectives, and strategies for the prevention that focus on decreasing the morbidity rates of STI and on those STIs with very high morbidity rates (Chlamydia, N gonorrhea, Syphilis, and Human papillomavirus), though most of the components of the plan are applicable to other STIs (herpes simplex virus, trichomoniasis, Mycoplasma genitalium)[3].It is of prime importance for the countries to undertake this challenge, in order to achieve the Sustainable Development Goal 3 on universal access to healthcare facilities. To this end, World Health Organization (*WHO*) developed a universal plan in a strategic way so as to ensure that "every newborn, mother and child not only survives, but thrives."[4]

Chlamydia trachomatis (CT) and Neisseria gonorrhoeae (NG) are the commonest bacterial sexually transmitted diseases in pregnancy. Chlamydia and Gonorrhea infections in women may result in ectopic pregnancy, abortions, preterm deliveries, postabortal and postpartum endometritis, neonatal conjunctivitis and pneumonia[5]. Increased frequency is noted in pregnancy, adolescent girls, and low educational or socioeconomic status They often occur with HIV infection[6]. Unlike the viral sexually transmitted infections (HIV, Hepatitis B and C), routine antenatal screening for CT and NG infections is rarely done in low- and middle-income countries (LMICs). Even in countries with proper documented guidelines for routine STI screening of all pregnant women, under-screening still occurs[7]. Unfortunately, sexually transmitted infections, particularly in pregnant women, are neglected health issues despite the negative impact on fetomaternal and infant outcomes.

NEED FOR THE STUDY: Hence present study is undertaken to study the effect of sexually transmitted infections on pregnant women and its feto- maternal outcome which might help in reducing the adverse outcomes to some extent.

II. AIMS & OBJECTIVES

AIM: To study on sexually transmitted infections in pregnant women and its fetomaternal outcome

OBJECTIVES:

1. To know about the clinical presentation of the sexually transmitted infections in pregnancy.
2. To study the fetomaternal outcome in pregnant women affected with sexually transmitted infections.

III. MATERIALS AND METHODS

The present study was conducted in department of obstetrics & gynecology, GGH, Kadapa after obtaining the institute ethical committee approval. Informed consent was taken from patient before enrolling into the study.

Study Place: Government General Hospital, Kadapa

Study Design: A hospital based prospective study

Study Period: 18 months

Duration of the study: From February 2021 to July 2022

Study subjects: Antenatal mothers, who fulfill inclusion & exclusion Criteria and those who give informed

consent.

Inclusion criteria:
1.All pregnant women coming to antenatal OPD with complaints of sexually transmitted infections viz., pain abdomen, vaginal discharge, swellings in genital region, genital ulcers.
2.Pregnant women who are a old case of STI.
3.Pregnant women who give written informed consent.

Exclusion criteria:
1.Women who are not willing to give consent.
2.Patients with significant cognitive and psychiatric history.

SAMPLE SIZE:
Patients with high risk behaviour attending OPD and admitted as in patients in the department of OBG, GGH KADAPA.
Total number of sample: 102 pregnant women
During the study period, a total number of 102 pregnant women with STI, who attended the outpatient and inpatient department of OBG, GGH KADAPA, who fullfill the inclusion criteria and has given the informed consent were included in the current study.

IV. STUDY METHODOLOGY:

After institutional ethical committee approval, those antenatal mothers who are willing to give written informed consent are included in the study, their complaints were noted, clinical examination and battery of investigation were done to arrive at the diagnosis. Case management of those with positive test results done. Male partners were also treated. The major part of the treatment was to counsel the couple regarding the transmission, clinical features, risks, and treatment of various sexually transmitted diseases. Then the pregnant women were followed up till delivery for fetomaternal outcome. Any antenatal complications due to STI in mother, treatment adherence, mode of delivery, any intrapartum/postpartum complications, neonatal outcome were noted. Newborns were followed up till one week after delivery. Their birthweight, APGAR score and SNCU admissions were noted and finally condition of the baby at the time of discharge is noted.

SPECIMEN COLLECTION:

Vaginal discharge was examined after adding one drop of normal saline for wet mount and 10% potassium hydroxide one drop is added for KOH mount and for Whiffs test. Ph of the discharge was noted. Discharge was also smeared on glass slide for Gram stain.In case of genital ulcer, after thorough cleaning of ulcer, serous exudate was used for dark field microscopy for treponoma. Smear was taken from base of the ulcer for Tzanck smear for Herpes and Gram staining was also done. Tissue smear was taken and stained with sandomiz's stain for Klebsiella granulomatis.

V. RESULTS & OBSERVATIONS

In present study maximum i.e., 39 (38.2%) cases were of 16-20 years age group followed by 21-25 years (30.4%) and 26- 30 years (25.5%). Minimum cases found 36-40 years age group i.e., 1%. Majority of study subjects were illiterate (51.9%) followed by high school educated (32.3%) and graduated (8.9%). 6.9% were educated up to primary school.

Out of 102 women, 55.8% belongs to lower socioeconomical status followed by upper lower status (25.5%) and lower middle status (15.8%). 2.9% were belongs to upper middle class.

In present study 97.1% of women were married and 2.9% had premarital/extramarital affair.

Among 102 pregnant women , 62.7% were multi gravida and 37.3% were primi gravida.

Majority (67.6%) of pregnant women were old cases of STIs and 32.4% were newly diagnosed as STIs.

Among 102 patients, 26.5% has presented with WDPV followed by pain abdomen (9.8%) and WDPV & pain abdomen in 4.9%, other 55.8% women have presented with leaking PV or have come for a regular Antenatal checkup or for safe institutional delivery.

Out of 102 pregnant women, 4.9% had a history of multiple sex partners, 11.2% cases had a past H/O of STIs, 3.9% were had blood transfusion history.

In present study 63.7% (65) had adherence to treatment. 36.3% (37) were not adherence to treatment.

80.4% women had no maternal complications and 11.8% had preterm deliveries, followed by 3.9% women had PROM and 2.9% had abortions.

In present study 82.35% women had term delivery and 14.7% had preterm delivery, and 2.94% had first and second trimester abortions.

Mode of delivery in present study was vaginal for 56.86% women followed by C-sections for 40.2% and abortions in 2.94% of women.

In present study 48.04% baby's birth weight was 2.6 to 3.0kgs followed by 2.1 to 2.5 kgs in 28.43% and 3.1 to 3.5 kgs in 11.76%.

92.16% babies APGAR score was between 8 to 10 and 3.92% babies score was between 6 to 8. 25.5% babies were admitted in SNCU and 19.61% babies were found with LBW and 3.92% were respiratory distress

TABLE 28: DISTRIBUTION OFSTUDY SUBJECTS ACCORDING TO NEONATAL OUTCOME

NEONATAL OUTCOME	FREQUENCY	PERCENTAGE
ABORTIONS	3	2.94
IUD	1	0.98
IUGR	1	0.98
PRETERM	11	10.78
LOW BIRTH WEIGHT	11	10.78
NEONATAL DEATH	1	0.98
NO COMPLICATIONS	74	72.55
TOTAL	**102**	**100**

TABLE 22: DISTRIBUTION OF STUDY SUBJECTS OF MODE OF DELIVERY

MODE OF DELIVERY	FREQUENCY	PERCENTAGE
VAGINAL	58	56.86
C-SECTION	41	40.20
ABORTIONS	3	2.94
TOTAL	**102**	**100**

VI. DISCUSSION

The present study was conducted among 102 pregnant mothers to study on sexually transmitted infections in pregnant mothers and its fetomaternal outcome. STIS/reproductive tract infections (RTIs) are a major public health problem. STIs and other genital tract infections have been associated with several adverse pregnancy outcome including abortions, still births, preterm deliveries, LBW, postpartum sepsis, neonatal pneumonia, neonatal blindness and congenital infections.

Age

In current study maximum pregnant women were belongs to 16-20 years age group (38.2%) followed by 21 -25 years (30.4%) and 26-30 years (25.5%). This is in conformance with the study done by Barney OJ et al[6]. Shah et al[7] also found that the estimated prevalence of STIs reduced with advanced age. This relatively younger age group in antenatal women in India is due to early age of marriage and subsequent exposure to sexually transmitted agents from their husbands.

Education status

In current study major proportion of pregnant mothers were uneducated (51.9%). This indicates health education and knowledge about sexually transmitted diseases and HIV infection is very essential. In the current study up to high school studied women were 32.3%. It is a well known fact that illiteracy and ignorance are the major factors responsible for spread of STIs and HIV infection. Since HIV cannot be cured, it is crucial to stop the infection from spreading. This can be done by promoting condom use and teaching individuals about safe STI prevention measures. Therefore targeted programmes must be conducted which give idea about the seriousness and long term consequences with special emphasis on homo / bisexual behaviour.

Jahan et at [8] study reported that most of pregnant females were uneducated (69.7%), followed by education up to primary school (13.6%), preprimary (6.8%), high school (6.1%) and least number of patients were graduate and above (3.8%).

Incidence of STIs

In current study 86.3% of pregnant mothers were seen with single infections and 13.7% were presented with mixed infections. In Chaubey S et al[9] study 128 pregnant mothers (12.8%) had combined infections which was relatable to current study.

VII. SUMMARY AND CONCLUSION:

The current study conducted among 102 antenatal mothers at GGH Kadapa on sexuallytransmitted infections in pregnancy and its fetomaternal outcome showed that STIs are more common among the uneducated young women between 16-25 years of age, married, mostly belonging to low socioeconomic status. Most of them are already diagnosed cases with common presenting complaints being discharge per vaginum and pain abdomen. In current study more number of HIV positive cases are seen. One case of IUD noted and three cases of abortions are seen in the current study. Most of the babies are term babies with good Apgar at birth. Neonatal outcome being low birth weight as the most common complication for which babies needed SNCU admission. One neonatal death happened with almost all the newborns discharged in good condition.

STI in pregnant mothers have many adverse fetomaternal outcomes like spontaneous abortions, still births, preterm deliveries, low birth weight.Global health in equalities and the relation between sexually transmitted infections and poor pregnancy and the neonatal outcomes indicates the need for better maternal and neonatal health care facilities. Thus the current study conducted emphasizes the need for diagonising and managing the STis to avoid the complications to both mother and the neonate.

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