

# Pattern of Sexually Transmitted Infections in Pregnant Women

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**Abstract:** Introduction: Women who are pregnant may become infected with sexually transmitted infections (STI). The outcome of pregnancy may be affected as the newborn get infections via perinatal transmission. Aim: To estimate the pattern of sexually transmitted infections in pregnant women attending STD OP. Materials & Methods: A clinical retrospective study was conducted in pregnant women from January 2013 –June 2015 by history, clinical examination, laboratory investigations after informed consent. Results: Among 11959 female patients, pregnant women were 84(0.7%) . 41(48.8%) pregnant women had STIs with genital wart 10 (24%), syphilis 9 (22%), vulvovaginal candidiasis 8 (19 %), molluscum contagiosum 2(5 %), trichomoniasis, HIV +ve, and bacterial vaginosis were 2.5% . Pattern of mixed infections like Early latent syphilis +VVC, VVC+ genital wart+ genital herpes , HIV+ve + herpes , HIV +ve +genital wart constitute 2.5% each. Conclusion: This study stresses the importance of Antenatal screening for HIV, Syphilis in 1<sup>st</sup> & 3<sup>rd</sup> trimester & partner screening.

**Keywords:** Pregnant Women, Sexually Transmitted Infections (STIS), HIV, Vulvovaginal Candidiasis (VVC), Genital Wart

## 1. Introduction

Sexually transmitted infections include diseases that are transmitted by sexual intercourse .It requires the presence of agent in one partner, other partner to be susceptible to infection, when engaged in sexual practices .<sup>1</sup> STI are prevalent in teenagers & young adults .

In pregnancy syphilis, gonorrhoea , chlamydia, ,HIV,HPV & herpes simplex carry a potential impact on maternal ,fetal & neonatal health .During pregnancy there is a change in immunology like decreased cell mediated immunity ,release of Th1 type cytokines & other pro inflammatory cytokines. Women are more susceptible to infection.

STIs have been associated with spontaneous miscarriage, still birth, prematurity, low birth weight, preterm labor, PROM, post partum endometritis.<sup>1</sup> So early screening & treatment of the STI should be done to minimize the Antepartum, Intrapartum, & Postpartum consequences.

## 2. Aim & Objectives

To know the pattern of STI by using laboratory tests among pregnant women and to find the socio demographic factors influencing STI.

## 3. Materials & Methods

A clinical retrospective study was conducted in the pregnant women from January 2013 to June 2015 at tertiary care centre.

Patients were screened according to their age distribution, education, socio economic status, number & duration of current pregnancy, & symptoms. This is followed by clinical exam and laboratory investigations like wet mount, KOH for candida, gram staining, Tzanck smear, culture for gonococci, culture for candida , & serology .

## 4. Results

Among 11959 female patients, pregnant women were 84(0.7%).

Majority (83.3%) were of 25- 35 years age group, followed by 15% of < 25 years age. Majority belonged to lower socio economic status ( 86.6%),

In our study group most of them were illiterate( 36%), followed by primary schooling (21% ) and remaining 15.5%,14.3%, 13.2 % have studied upto High school, Higher secondary, Degree respectively. Among 84 pregnant women, 65.2% were multigravida and 28.8 % were primigravida.

Most of the study group belonged to second trimester of pregnancy (67.5%), followed by 1<sup>st</sup> trimester (56.2%) & 3<sup>rd</sup> trimester (17.8%) of pregnancy (Fig No. 1)

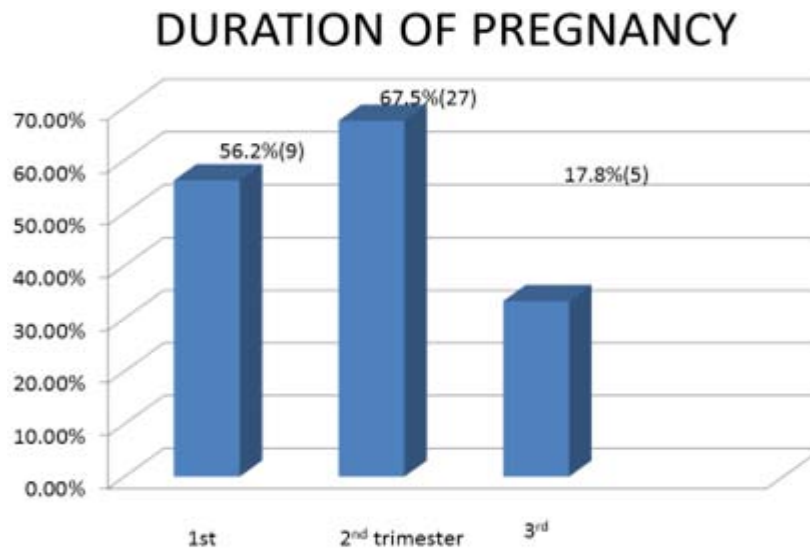


Figure 1

Among 84 pregnant women 85.7 % were aware of STI and HIV and remaining 14.3 % were not aware of STI & HIV infection.

In the study group only 34 pregnant women had vaginal discharge. Mucoïd vaginal discharge was predominant (58.8%), followed by curdy and frothy discharge each 5.9% respectively. (Fig No.2)

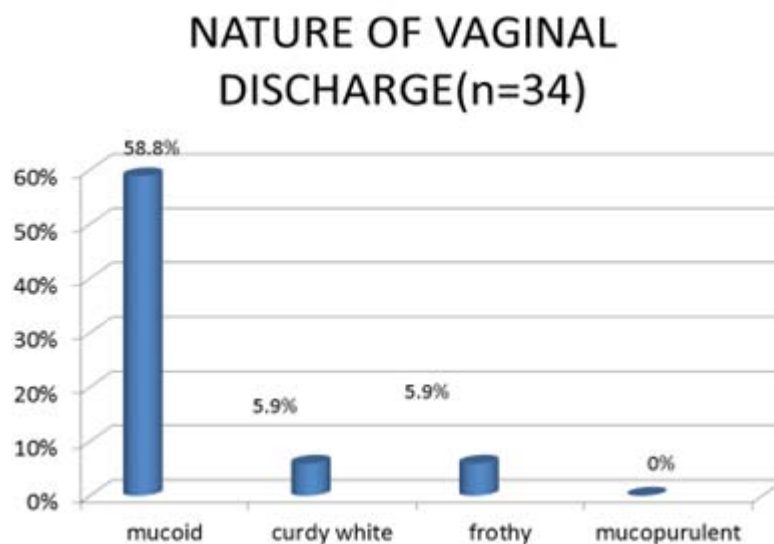


Figure 2

Among the 84 pregnant women 13.09% were Reactive to Blood VDRL test for Syphilis and 86.91% were Nonreactive.

Among 84 pregnant women 4 were Reactive for HIV and remaining 80 were Non Reactive for HIV. Individual STI's were diagnosed by clinical and Laboratory examinations and results are tabulated below (Table No.1 )

**Table 1:** Individual STI diagnosed by clinical exam, laboratory investigations (77.5%)

	no	%
Genital wart	10	24
syphilis	9	22
candidiasis	8	19
Molluscum contagiosum	2	5
Retroviral disease	1	2.5
Bacterial vaginosis	1	2.5
Trichomoniasis	1	2.5

Pattern of mixed infections (22.5%) like Early latent syphilis +VVC, VVC+ genital wart+ genital herpes , HIV+ve + herpes , HIV +ve +genital wart constitute 2.5% each.

## 5. Discussion

Sexually transmitted infections constitute a major public health problem in developing & developed countries .Emergence of HIV insist the control of STI in the community. STI including HIV are important in determining the pregnancy outcome in developing countries .Sexually transmitted infections constitute a major public health problem in developing & developed countries .

From our study, pattern of STI in pregnant women was 48.8% (41). Our study showed the trend of STI were more in the age group of 25—35 yrs (83.3%),<sup>2</sup> due to increased sexual activity in this age group. There was increased STI in persons with poor literacy.<sup>3,4</sup>

Majority of women had STI in 2<sup>nd</sup> trimester 67.5 % (27) as compared to 1<sup>st</sup> & 3<sup>rd</sup> trimester. Multigravida had more infections than primigravida citing the association between increased number of parity & STI. In our study group 75.6% (31) had symptoms like vaginal discharge , itching , soddening of vulva & ulcer in the genital area.

Majority of women had genital wart 24%(10)<sup>5,6</sup> followed by syphilis 22%(9) then candidiasis 19%(8). Prevalence of Trichomoniasis was 2.5% <sup>7</sup>.

## 6. Conclusion

This study stresses the importance of Antenatal screening for HIV, Syphilis in 1<sup>st</sup>&3<sup>rd</sup> trimester & partner screening. Safe sex practices including correct , consistent use of condoms should be stressed on Antenatal women and their sexual partner.

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