

To Study the Pattern of Vaginal Infections among Women and Perinatal Outcome in Pregnant Women with Vaginal Infections Attending Obstetrics and Gynaecology Department in a Tertiary Care Hospital

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ABSTRACT

Background: Vaginal infections are very common and treatable disease. Though itching, foul odour excessive vaginal discharges are common symptoms many a times they can be asymptomatic. Genital infections during perinatal period are a relatively common cause of morbidity, occurring in approximately one third of pregnant women. The objective of the study is to study pattern of vaginal infections in women, to study perinatal outcome in pregnant patients with vaginal infections and study response to treatment in non pregnant symptomatic patients

Method: This is a Prospective study conducted from January 2017 to June 2017 in a tertiary care hospital in which 100 non pregnant patients with pv discharge and 30 antenatal patients with vaginal infection were studied and there vaginal swab was taken for culture sensitivity and pattern of infection was studied along with pregnancy outcome like preterm labour, premature rupture of membranes, IUGR and symptomatic relief in non pregnant patients.

Result: Majority of age group was between 30-35 years that is 40%. 30 (23.07%) were antenatal patients with infection and 100 were non pregnant. In pregnant women 16 (53.33%) had infection with E coli, (40%) 12 had candidiasis and 2 showed no growth. Only 1 woman (3.33%) had preterm labour and delivered at 34 weeks. 2(6.67%) had premature rupture of membranes at 36 weeks. All these women had come in second trimester with vaginal discharge and were treated. None had intrauterine growth retardation and chorioamnionitis. All antenatal patients had responded to treatment. In non pregnant women

20 % had Klebsiella infection, 40% had E coli, 10 had MRSE, 30% had candidiasis. 97% responded to treatment while 3% didn't respond who responded after second line of antibiotics.

Conclusion: Pregnant women are at high risk of vaginal infections especially in the second and third trimesters. Adequate investigation and prompt treatment will prevent adverse effects on mother, foetus and in non pregnant women future comorbidities are reduced.

Keywords: vaginal infections, pv discharge, candidiasis

INTRODUCTION

Vaginal infections are very common and treatable disease. Though itching, foul odour excessive vaginal discharges are common symptoms many a times they can be asymptomatic. [1] Genital infections during perinatal period are a relatively common cause of morbidity, occurring in approximately one third of pregnant women. [2] In pregnant women it can lead to Intrauterine growth retardation, preterm labour, postpartum endometriosis, premature rupture of membranes and majority of these women are asymptomatic. [3] Late presentation to the doctor increases the risk of maternal and infant morbidity on one hand and of premature birth on the other hand. Inappropriate use of antibiotics has resulted in the occurrence of attenuated clinical forms of genital infections which chronicized infections with germs with multiresistance to usual antibiotics. [4] In gynaec women the untreated infection can

lead to chronic irritation, scratching, Pelvic inflammatory disease, postoperative infections. To prevent these complications knowledge regarding prevalence of various vaginal infection in given community is essential to treat same effectively. This will improve the perinatal outcome and reduce the co morbidities.

MATERIALS AND METHODS

130 Women coming to the tertiary medical college OBG department with pv discharge were included in the study. High Vaginal swab for culture and sensitivity and gram staining was sent of all these patients. Pregnancy outcome was studied in antepartum patients with infections. Treatment was offered to patients according to culture sensitivity report and response of treatment was analysed. Data was analysed using statistical software SPSS version 18. Results was expressed in percentages. Ethical committee permission was taken. Inclusion criteria: All patients with per vaginal discharge
Exclusion criteria: Patients with per vaginal bleeding, diagnosed case of cancer, women with premature rupture of membranes ,women with no history of sexual contact and who are not willing for follow up

Majority of age group was between 30-35 years that is 40%. 30 (23.07%) were antenatal patients with infection and 100 were non pregnant. In pregnant women 16 (53.33%) had infection with Ecoli, (40%) 12 had candidiasis and 2 showed no growth. Only 1 woman (3.33%) had preterm labour and delivered at 34 weeks. 2(6.67%) had premature rupture of membranes at 36 weeks. All these women had come in second trimester with vaginal discharge and were treated. None had intrauterine growth retardation and chorioamnionitis. All antenatal patients had responded to treatment. In non pregnant women 20 % had Klebsiella infection, 40% had E coli, 10 had MRSE, 30% had candidiasis. 97% responded to treatment while 3% didn't respond who responded after second line of antibiotics

Table no 1 Age wise distribution of cases

Age of patients	Number	Percentage
20- 25	24	18.46%
26-30	16	12.30%
30-35	40	30.77%
36 -40	10	7.69%
41-45	20	15.38%
46-50	20	15.38%

Table no 2 Pregnancy status

Pregnancy status	Number	Percentage
pregnant	30	23.07%
Non pregnant	100	76.92%

RESULTS

Table no 3 Pattern of infection in pregnant women

	Number of patients	Ecoli	Candidiasis	No growth
First trimester	10	6 (60%)	4 (40%)	0
Second trimester	8	5 (62.5%)	3 (37.5%)	0
Third trimester	12	5 (41.66%)	5 (41.66%)	2 (16.66%)
Total	30	16 (53.33%)	12 (40%)	2 (6.66%)

Table no 4 Pregnancy outcome in pregnant women with infections

Pregnancy outcome	Number	Percentage
Preterm labour	1	3.33%
Iugr	0	o
Premature rupture of membranes	2	6.67%
Chorioamnitis	0	o

Table no 5 Infection pattern in non pregnant women

Infection	Number	Percentage
Kleibsella	20	20%
E coli	40	40%
MRSE	10	10%
Candidiasis	30	30%

Table no 6 Response to treatment in non pregnant women

Response to treatment	Number	Percentage
Cured	97	97%
Non cured	3	3%

DISCUSSION

Vaginal discharge is common in pregnancy and may be physiologic. In women with persistent and bothersome discharge, screening for lower genital tract infections (vaginal and cervical) is recommended. The presence of bacterial vaginosis has consistently been shown to be a risk factor for adverse obstetric outcomes, such as preterm labour and delivery, preterm premature rupture of membranes, spontaneous abortion, chorioamnionitis, and postpartum infections such as endometritis

and Caesarean section wound infections. [5-10]

In our study most common organism causing discharge was E. coli. Although trials of women at low risk for preterm delivery have not demonstrated benefit in treating bacterial vaginosis in pregnancy with respect to adverse outcomes, studies enrolling women who are at higher risk for premature birth have had more promising results. Morales et al. published results on a cohort of 80 women at 13 to 20 weeks gestation with bacterial vaginosis and a history of preterm delivery who were randomized to oral metronidazole or placebo. [11] Women in the treatment group had a significantly decreased incidence of hospital admissions for preterm labour, premature births, infants with low birth weights, and preterm premature rupture of membranes compared with those in the placebo group. Hauth et al. [12] showed that women with bacterial vaginosis and either a history of preterm birth or low pre-pregnancy weight who were treated with oral metronidazole and erythromycin had a lower incidence of preterm birth than those receiving placebo.

CONCLUSION

Pregnant women are at high risk of vaginal infections especially in the second and third trimesters. Adequate investigation and prompt treatment will prevent adverse effects on mother, foetus and in non pregnant women future comorbidities are reduced. Thus depending upon the organism which might vary, specific treatment should be given at proper time. This will help in better pregnancy outcome.

REFERENCES

1. Oleszczuk J, Keith LG, vaginal infection prophylaxis and perinatal outcome – a review of literature. *Int j fertile womens med* 2000 nov dec 45(16) 358-367
2. Al-Chowdhury, M. N. H. Diagnosis of Gardnerella vaginalis associated vaginitis: a practical guide. *Saud Med.* (1986)

3. Hetal BG, Michel E Rivlin vaginitis *Medscape* Nov 2015
4. Cailloutte JC, Sharp CF., Zimmerman GJ, Vaginal pH as a marker for bacterial pathogens and menopausal status. *American J. Obstet. Gynecol.* (1997) 176 (6):
5. Hillier SL, Nugent RP, Eschenbach DA, Krohn MA, Gibbs RS, Martin DH, et al., for the Vaginal Infections and Prematurity Study Group. Association between bacterial vaginosis and preterm delivery of a low-birth-weight infant. *N Engl J Med* 1995;333:1737–42.
6. Gravett MG, Hammel D, Eschenbach DA, Holmes KK. Preterm labor associated with subclinical amniotic fluid infection and with bacterial vaginosis. *Obstet Gynecol* 1986; 67:229–37.
7. Minkoff H, Brunebaum AN, Schwartz RH, Feldman J, Cummings M, Crombleholme W, et al. Risk factors for prematurity and premature rupture of membranes: a prospective study of the vaginal flora in pregnancy. *Am J Obstet Gynecol* 1984;150:965–72.
8. Leitich H, Bodner-Adler B, Brunbauer M, Kaider A, Egarter C, Husslein P. Bacterial vaginosis as a risk factor for preterm delivery: a meta-analysis. *Am J Obstet Gynecol* 2003; 189:139–47.
9. Hillier SL, Martius J, Krohn MA, Kiviat N, Holmes KK, Eschenbach DA. A case-control study of chorioamnionic infection and histologic chorioamnionitis in prematurity. *N Engl J Med* 1988;319:972–8.
10. Watts DH, Krohn MA, Hillier SL, Eschenbach DA. Bacterial vaginosis as a risk factor for postcesarean endometritis. *Obstet Gynecol* 1990; 75:52–8.
11. Morales WJ, Schorr S, Albritton J. Effect of metronidazole in patients with preterm birth in preceding pregnancy and bacterial vaginosis: a placebo-controlled, double-blind study. *Am J Obstet Gynecol* 1994;171(2):345–7.
12. Hauth JC, Goldenberg RL, Andrews WW, DuBard MB, Copper RL. Reduced incidence of preterm delivery with metronidazole and erythromycin in women with bacterial vaginosis. *N Engl J Med* 1995;333:1732–6.

How to cite this article: Iyengar RS, Raut NN. To study the pattern of vaginal infections among women and perinatal outcome in pregnant women with vaginal infections attending obstetrics and gynaecology department in a tertiary care hospital. *Galore International Journal of Health Sciences & Research.* 2019; 4(3): 158-160.
