

**DIFFERENT TYPES OF VAGINITIS AND THE ASSOCIATION
BETWEEN BACTERIAL VAGINOSIS AND URINARY TRACT
INFECTION AMONG SUSPECTED PREGNANT WOMEN**

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Submitted by

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ABSTRACT

Vaginitis is the inflammation and infection of the vagina most oftenly caused by bacteria, fungi and parasites. This cross-sectional descriptive study was carried out to describe the prevalence and distribution factors of different types of vaginitis and the association between bacterial vaginosis and urinary tract infection among suspected pregnant women visiting Thapathali Maternity and Women's Hospital, Kathmandu during the period of June 2010 to December 2010. Duplicate high vaginal swabs (HVS) were taken for whiff test, wet mount, pH determination, gram stain and culture. Similarly midstream urine of those patients was taken and culture was done for determination of urinary tract infection (UTI).

Among 230 pregnant women, 40.0% had vaginitis, and the prevalence of bacterial vaginosis (BV), vulvovaginal candidiasis (VVC) and trichomoniasis was found to be 27.8%, 24.3% and 0.4% respectively. The infection rate was higher in inpatients (26.9%), rural (30.8%), housewife (28.6%) and illiterate (22.6%) women compared to outpatients (13.0%), urban (9.1%), employed (11.3%), and literate women (17.4%) respectively. The infection rate was higher in age group 20 to 29 (44.7%) while least infected age group was 40 and above (20.0%). Pregnant women in third trimester were more infected (42.5%) followed by second (39.4%) and first trimester (28.0%). BV was found more common among women who smoke (56.0%) than nonsmoker (20.0%) ($P < 0.05$). Infection rate was higher in symptomatic cases (54.7%) as compared to asymptomatic women (24.8%). Among 64 BV positive cases, 23.4% had UTI while only 10.2% of pregnant women without BV had UTI ($P < 0.05$). *E. coli* was the most predominant bacteria isolated from both HVS (53.1%) and urine (43.8%). *E. coli* isolated from HVS and urine was 52.9% and 57.1% multidrug resistance respectively. Hence, the prevalence of vaginitis was higher among pregnant women and BV was associated with UTI during pregnancy. Also the higher percentage of the isolated bacteria was found to be multidrug resistance.

Key words: vaginitis, pregnancy, BV, UTI, MDR

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LIST OF ABBREVIATIONS

AIDS:	Acquired Immunodeficiency Syndrome
ASB:	Asymptomatic Bacteriuria
BA:	Blood Agar
BV:	Bacterial Vaginosis
CDC:	Center for Disease Control and Prevention
CONS:	Coagulase Negative Staphylococci
HIV:	Human Immunodeficiency Virus
HVS:	High Vaginal Swab
ICU:	Intensive Cardiac Unit
IUCD:	Intra-uterine Contraceptive devices
KOH:	Potassium Hydroxide
MA:	MacConkey Agar
mg:	Milligram
MHA:	Muller Hinton Agar
ml:	Milliliter
OD:	Oral drug
OPD:	Outpatient Department
PID:	Pelvic Inflammatory Diseases
SB:	Symptomatic bacteriuria
SDA:	Sabouraud Dextrose Agar
STI:	Sexually Transmitted Infection
TU:	Tribhuvan University
UTI:	Urinary Tract Infection