INCIDENCE OF BACTERIAL VAGINOSIS IN THIRD TRIMESTER OF PREGNANCY AND NEONATAL OUTCOME

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INTRODUCTION

Bacterial vaginosis is a polymicrobial, superficial vaginal infection involving a reduction in the amount of hydrogen-peroxide-producing *Lactobacillus* and an overgrowth of anaerobic and Gram-negative or Gram-variable bacteria.

Risk Factors:

The current predictors of BV have been limited to race, sexual activity, socioeconomic status, and perhaps vaginal douching.

The reported prevalence of BV among pregnant women ranges from 10 percent to 35 percent, with higher rates occurring among African-American women, women of lower socioeconomic status, or women with prior sexually transmitted diseases.

Diagnosis:

Two diagnostic tests are commonly used for BV. Amsel criteria, the test most commonly used in the clinical setting, involves assessing four clinical conditions, with the existence of three or more conditions corresponding to a diagnosis of BV.

The second diagnostic test involves a Gram stain of vaginal fluid and use of Nugent criteria to identify a case of BV. This method has been shown to have a high sensitivity and specificity compared with Amsel criteria (89 percent and 83 percent, respectively).

AIM OF THE WORK

The aim of the present work was to determine the incidence of bacterial vaginosis in third trimester pregnancy and its correlation with pregnancy complications and neonatal outcome.

PATIENTS AND METHODS

PATIENTS:

One hundred apparently healthy pregnant women were selected from patients attending the antenatal clinic of El-Shatby Maternity University Hospital according to the following citeria:

a) Inclusion criteria: * Pregnant female > 28 weeks.

b) Exclusion criteria: *Absence of maternal medical problems (including diabetes mellitus, severe hypertension with pregnancy and immune deficiency states).

*No history of administration of any microbial agent within the last two weeks.

METHODS:

All patients included in the study were subjected to the following:

1-History taking :

2-Examination: General and Local (abdominal and pelvic) examination.

3-Microbiologic examination: Two diagnostic tests were used, The Amsel criteria and the Nugent criteria, to identify a case of BV.

4-Follow up:

The aim of this follow up was to detect the occurrence of certain obstetric problems and neonatal outcome that maybe related to BV, such as preterm labour, premature rupture of the membranes, NICU admission and Respiratory distress at birth .some cases dropped of during follow up.

RESULTS

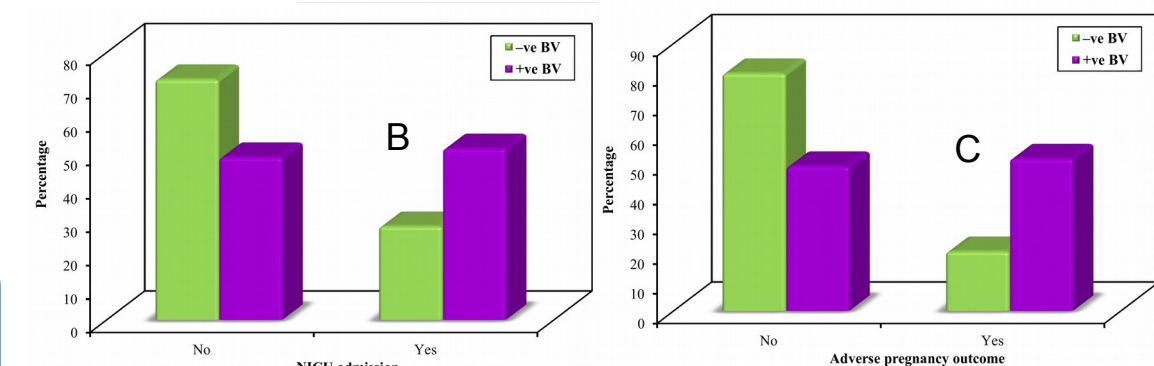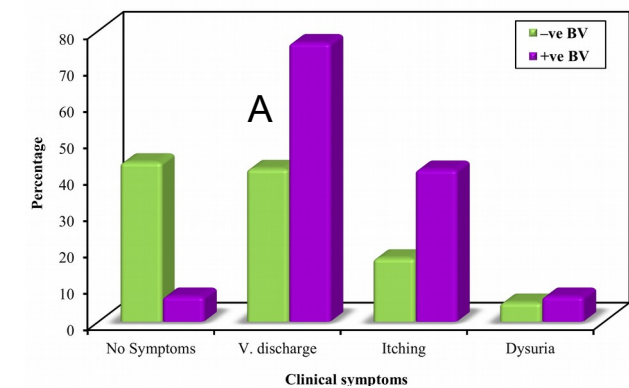**Table 1:** Relation between BV and clinical symptoms (n=100)

Clinical symptoms	−ve BV (n=57)		+ve BV (n=43)		p
	No.	%	No.	%	
No Symptoms	25	43.9	3	7.0	<0.001*
Vaginal discharge	24	42.1	33	76.7	0.001*
Itching	10	17.5	18	41.9	0.007*
Dysuria	3	5.3	3	7.0	FEp=1.000

*: Some symptoms are overlapped

Table 1: Relation between BV with NICU admission and adverse pregnancy outcome (n= 89#)

	−ve BV (n=57)		+ve BV (n=39)		p
	No.	%	No.	%	
NICU admission					
No	36	72.0	19	48.7	0.025*
Yes	14	28.0	20	51.3	
Adverse pregnancy outcome					
No	40	80.0	19	48.7	0.002*
Yes	10	20.0	20	51.3	

*: Missed cases due to missed follow up

Figure:
A) Relation between BV and clinical symptoms
B) Relation between BV and NICU admission (n = 89#)
C) Relation between BV and Adverse pregnancy outcome (n = 89#)

CONCLUSION

- Bacterial vaginosis is a common disease affecting females during pregnancy and its prevalence among the present study subjects is 43%.
- Pregnant women with Bacterial vaginosis are at increased risk to suffer from adverse pregnancy outcomes as PROM preterm labour and preterm delivery.
- Newborns whose mothers have BV during pregnancy are at increased risk for adverse outcomes that require NICU admission as respiratory distress, sepsis, prematurity and low birth weight.