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### Evaluating the Factors Influencing Bacterial Vaginosis in Pregnant Women: An Analytical Cross-Sectional Study

*Évaluation des Facteurs Influant sur la Vaginosis Bactérienne chez les Femmes Enceintes : Une Étude Transversale Analytique*

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#### ABSTRACT

**INTRODUCTION:** Bacterial Vaginosis (BV) has consistently been associated with adverse obstetric and gynaecological outcomes. It is a common vaginal condition. This study determined the prevalence and factors associated with BV among pregnant women.

**METHODS:** This study was a prospective analytical cross-sectional study in which 350 pregnant women, attending the antenatal clinic of the Lagos State University Teaching Hospital, over 6 months, had high vaginal swab samples taken aseptically and examined for Bacterial Vaginosis using the Nugent scoring system. Relevant socio-demographic, obstetric and gynaecologic data were obtained with a structured interview-based questionnaire. The odds ratio (OR) and 95% confidence intervals (CI) for possible risk factors for BV were determined.

**RESULTS:** The prevalence of bacterial vaginosis in pregnancy was 32%. Bacterial vaginosis was independently associated with no formal education [OR 4.19, 95% CI 2.47-4.56, p= 0.001]; primary education (OR 3.50, 95% CI 2.42-4.14, p<0.001); secondary education (OR 1.75, 95% CI 1.16- 2.41, p=0.009); increased coital frequency (OR 1.78, 95% CI 1.24-2.31, p=0.003); douching with water (OR 2.69, 95% CI 1.41- 4.43; p=0.004); douching with Dettol (OR 7.19, 95% CI 2.51- 8.61, p=0.004); douching with soap (OR 5.76, 95% CI 3.54-7.41, p< 0.001); HIV infection (OR 2.75, 95% CI 1.65-3.15, p=0.003) and obesity (OR 1.77 95% CI 1.20- 2.33, p=0.006).

**CONCLUSION:** The prevalence of bacterial vaginosis is high in pregnancy. It is significantly associated with low levels of education, increased coital frequency, douching, HIV infection, and obesity in pregnancy. *WAJM 2024; 41 (8): 845 - 852*

**KEYWORDS:** Pregnancy, Vaginosis, Bacterial Vaginosis, Antenatal

#### RÉSUMÉ

**INTRODUCTION:** La vaginose bactérienne (VB) est couramment associée à des issues obstétriques et gynécologiques défavorables. C'est une affection vaginale fréquente. Cette étude a déterminé la prévalence et les facteurs associés à la VB chez les femmes enceintes.

**MÉTHODES:** Il s'agissait d'une étude transversale analytique prospective impliquant 350 femmes enceintes fréquentant la clinique prénatale de l'Hôpital Universitaire d'État de Lagos. Pendant six mois, des prélèvements vaginaux ont été effectués de manière aseptique et examinés pour détecter la vaginose bactérienne en utilisant le système de score de Nugent. Les données sociodémographiques, obstétriques et gynécologiques pertinentes ont été recueillies à l'aide d'un questionnaire structuré. Le rapport des cotes (OR) et les intervalles de confiance (IC) à 95 % pour les facteurs de risque potentiels de VB ont été déterminés.

**RÉSULTATS:** La prévalence de la vaginose bactérienne pendant la grossesse était de 32 %. La VB était indépendamment associée à l'absence d'éducation formelle [OR 4,19, IC 95 % 2,47-4,56, p= 0,001]; niveau d'éducation primaire (OR 3,50, IC 95 % 2,42-4,14, p<0,001); niveau d'éducation secondaire (OR 1,75, IC 95 % 1,16-2,41, p=0,009); fréquence coitale accrue (OR 1,78, IC 95 % 1,24-2,31, p=0,003); douche avec de l'eau (OR 2,69, IC 95 % 1,41-4,43; p=0,004); douche avec Dettol (OR 7,19, IC 95 % 2,51-8,61, p=0,004); douche avec du savon (OR 5,76, IC 95 % 3,54-7,41, p< 0,001); infection au VIH (OR 2,75, IC 95 % 1,65-3,15, p=0,003) et obésité (OR 1,77, IC 95 % 1,20-2,33, p=0,006).

**CONCLUSION:** La prévalence de la vaginose bactérienne est élevée pendant la grossesse. Elle est significativement associée à des niveaux d'éducation bas, à une fréquence coitale accrue, à l'utilisation de douches, à l'infection par le VIH et à l'obésité pendant la grossesse. *WAJM 2024; 41 (8): 845 - 852*

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**MOTS CLÉS:** Grossesse, Vaginose, Vaginose bactérienne, Prénatal

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**Abbreviations - AIDS:** Acquired Immune Deficiency Syndrome; **BV:** Bacterial Vaginosis; **CI:** Confidence Interval; **HIV:** Human Immunodeficiency Virus; **LASUTH:** Lagos State University Teaching Hospital; **OR:** Odds Ratio; **USA:** United States of America