

Correlation of Diagnostic 4 Signs, Bacterial Vaginosis and *Gardnerella vaginalis* Isolation and Drug-resistant Profiles of Clinical Isolates

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Fifty-two strains of *Gardnerella vaginalis* (50%) were purely isolated from the vagina of 104 consecutive women (19 to 76 years of age) who had visited in local clinics complaining of the malodorous vaginal discharge. Among these patients, 29 persons (27.9%) were diagnosed as bacterial vaginosis (BV) by diagnostic 4 signs (homogeneous white discharge, positive amine test, vaginal pH>4.5, positive clue cell, Patients are diagnosed as BV, when 3 kinds of signs are positive).

The positive ratio of clue cell and the isolation rate of *G. vaginalis* were both 96.6% (28) in 29 BV patients and 14.7% (11), 32% (24), respectively, in 75 non BV patients. Among 52 strains of *G. vaginalis* isolated, 34 strains of *G. vaginalis* were isolated in the 39 clue cell positive persons (87.2%) and 18 strains in the 65 clue cell negative persons (27.7%). Sensitivity and specificity of 4 signs were as follows; clue cell test (96.6%, 85.3%), amine test (89.7%, 98.7%), vaginal pH>4.5 (86.2%, 57.3%), homogeneous discharge (93.1%, 65.3%).

This results mean that the existence of clue cell in vagina is highly sensitive but not very specific for the diagnosis of BV, and equally, the presence of *G. vaginalis* in vagina is closely related to the development of BV but not a sole predisposing factor. Vaginal pH and homogeneous discharge were less specific signs than clue cell and amine test in the diagnosis of BV. We consider that the diagnosis of BV will be enough only by the detection of clue cells in vagina.

In the antibiotic susceptibility test to the 46 strains of *G. vaginalis* including standard strain (ATCC 14018), MIC₉₀ of clindamycin and ciprofloxacin were 0.3, 0.6 µg/ml, respectively. MIC₅₀ of amoxicillin, cefazolin, doxycycline, erythromycin and gentamicin were >17.5, >15.6, >5, >10, 12.5 µg/ml, respectively. MIC range of metronidazole and tinidazole were 5~>80, 2.5~>80 µg/ml and MIC₅₀ of both drugs 20, 10 µg/ml, respectively. We recommend to use clindamycin for the treatment of BV instead of 5-nitroimidazoles.