

PREVALENCE OF BACTERIAL VAGINOSIS IN WOMEN USING IUCDS

Thesis

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The presence of heavy inflammation and changes helps diagnostically. The salient features of cellular changes are summarized in the following

Features	IUD Columnar Cells
● Tumor diathesis	Absent
● Distribution	Endocervical component
● Inflammation	Present
● Cellular degeneration	Present
● Bubble gum cytoplasm	Present
● Cellular preservation	Poor
● Bare nuclei	Absent
● Atypical histiocytic cells	Absent

Another cell type, best described as indeterminate changes or “IUD cells” probably arises from the endometrial surface. Such conclusions are the work of Gupta and co-workers (1993). These nucleocytoplasmic ratio-cells should be distinguished from the third type of cell described by Graham as carcinoma cells. Nuclear degeneration, the presence of nucleoli and a hiatus between normal and abnormal cells help differentiate these cells from true neoplastic cells.

Normal Vaginal Ecosystem

Vaginal lactobacilli are assumed to protect against infection by genital tract pathogens. In 1894 Dodelein first postulated that acid producing vaginal lactobacilli maintain low pH, through producing lactic acid from glycogen deposited in vaginal epithelium under effect of estrogen (Cruickshank & Sharman, 1934).

Lactobacilli not only produce lactic acid but also produce other antimicrobial compounds including acidolin (Hamdan & Mikolajciok, 1974) lactin (Barefoot & Klaenhammer, 1984) and H_2O_2 (Wheater et al., 1952).

Colonization of the vagina by H_2O_2 positive lactobacilli was associated with decreased frequency of bacterial vaginosis in pregnant women, and such women were less likely to develop vaginal colonization by *Gardnerella vaginalis*, bacteroids and peptostreptococcus (Hiller et al., 1992).

In-vitro inhibition of *Gardnerella vaginalis* by lactobacilli with the greatest inhibition associated with lactobacilli which produced the greatest amount of acid was demonstrated in a study of (Durfee et al., 1979) and Skarin & Sylwan (1986).

Botta et al. (1985) study showed that in vitro inhibition of *Gardnerella vaginalis* by H_2O_2 producing lactobacilli.

The species most frequently related to vaginal health are *Lactobacillus jensenii*, *Lactobacillus acidophilus* and *Lactobacillus rogosae* (Eschenbach et al., 1989).

The number of lactobacilli ranged between 1×10^7 and 5×10^9 CFU/mL of vaginal fluid from healthy women (Masfari et al., 1986 and Eschenbach et al., 1989).

The H_2O_2 producing lactobacilli were found in vagina of 96% of normal women and 6% of women with bacterial vaginosis. While anaerobic lactobacilli, which not producing H_2O_2 were isolated in 36% of women with bacterial vaginosis and in 4% of normal women (Eschenbach et al., 1989).