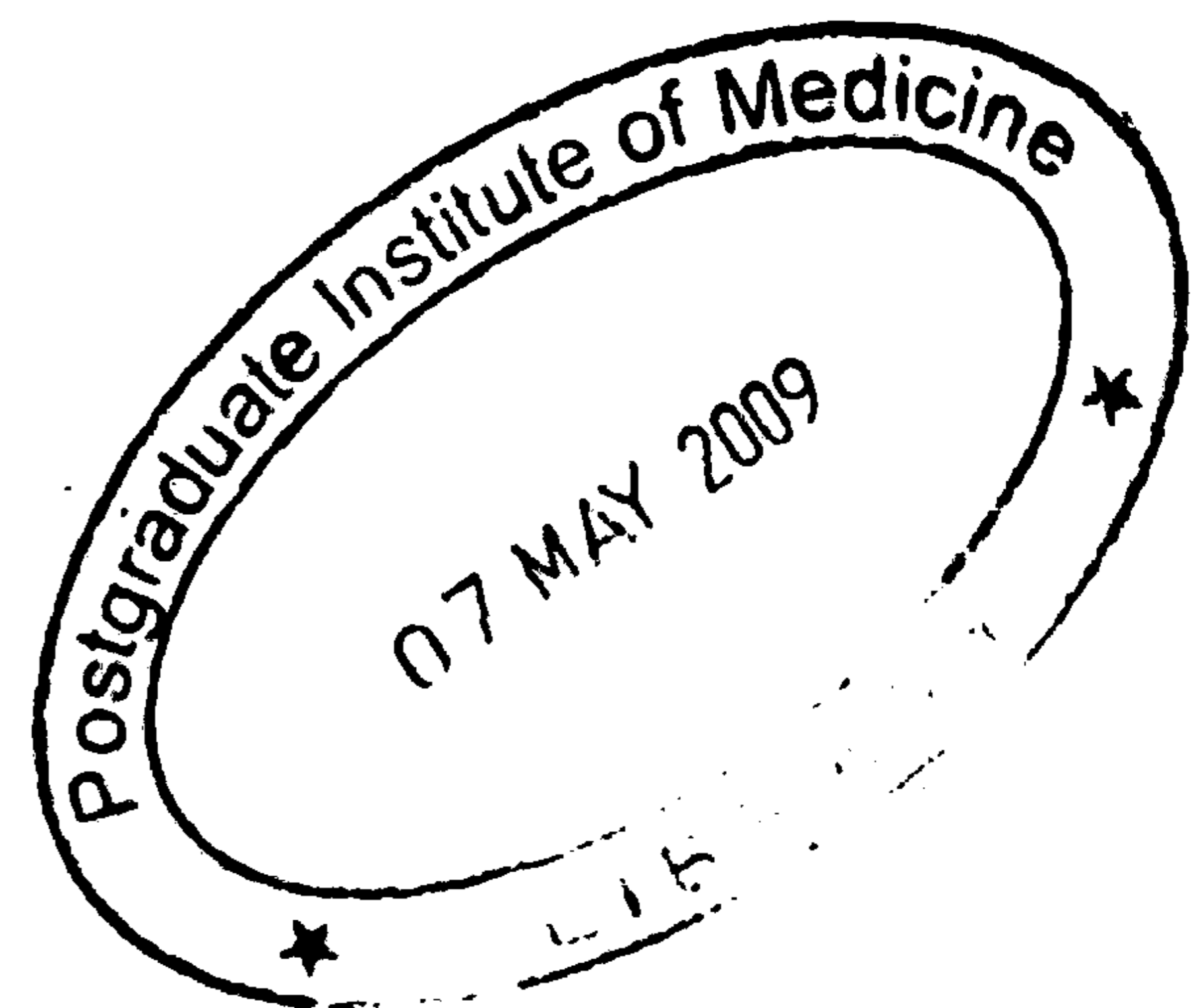


Abstract

Community prevalence data on RTI are sparse in Sri Lanka. It is believed that the prevalence is high among low socio economic groups. Routine data available are based on a selected group of women attending STD clinics. The diagnosis of RTI is based on speculum examination, the facilities for which may not be available in all health care settings. There is also reluctance on the part of women to undergo such examination procedures. Therefore this study was carried out to describe the epidemiological characteristics of selected RTI among the reproductive age women living in low socioeconomic communities within the Colombo Municipal Council (CMC) and to validate a practitioner administered blind vaginal swab as a simple screening method for use in the community to detect selected RTI in women.

A representative sample of seven hundred and seventy women were selected using a multistage sampling procedure from fifteen randomly selected Public Health Midwives (PHMM) areas from 5 Municipal Districts. An interviewer administered questionnaire was used to obtain data on sociodemographic factors, economic factors, and behavioral correlates. Clinical examination of women was carried out at the Primary Health Care clinics (PHC) of the CMC. Biological specimens were collected for laboratory diagnosis of RTI. Practitioner administered blind vaginal swab was validated against the conventional testing method of using a speculum examination to obtain swabs for the diagnosis of Bacterial Vaginosis (BV), and candidiasis.



96% of the selected women participated in the study. Endogenous infections and candidiasis were relatively common being (BV 8.6%, 95% CI: 6.6- 10.6, and 6.8 % 95% CI: 5-8.6) respectively. Sexually Transmitted Infections (STI) were infrequent. GC -0%, CT 0.6% (95% CI: 0.04- 1.16), and TV 0.6% (95% 0.04- 1.16). Prevalence of abnormal cervical cytology was found to be 0.9% (95% CI: 0.21- 1.16). Cervicitis and vaginitis were common. The prevalence of cervicitis was 18.4% (95% CI: 15.6- 21.2) and vaginitis was 25% (95% CI: 21.86- 28.14).

Of the symptom related correlates investigated, women's complaints of itching of vulva ($p= 0.014$, OR= 3.198, 95% CI: 1.260-8.114) and vaginal discharge ($p= 0.026$, OR= 2.611, 95% CI: 1.121-6.083) were statistically significantly associated with candidiasis in univariate analysis. Women's vaginal discharge on clinical examination was statistically significantly ($p=0.009$, OR= 1.795, 95%CI: 1.159-2.782) associated with vaginitis in the univariate analysis. None of these findings were statistically significantly associated in the multivariate analysis.

Compared to that of the gold standard low sensitivity (39.6%), low positive predictive value (35.9%) was seen with practitioner administered vaginal swab in the diagnosis of candidiasis. However, the test demonstrated a high degree of specificity (94.9%), and the negative predictive value (95.6%) was high. Since predictive values are prevalence dependent likelihood ratios were calculated and it was seen that the likelihood ratio for a positive test was (6.5) and that of a negative test (0.648) was low.

In the diagnosis of bacterial vaginosis the practitioner administered blind vaginal swab, showed a sensitivity and specificity of (85.2%) and (90.9%) respectively. The test also demonstrated a high likelihood ratio for positive test (8.5) and a low likelihood ratio for negative test (0.16).

This community based study demonstrated a low prevalence of RTI, among the urban slum dwellers in CMC. Furthermore, this study demonstrated feasibility of using a blind vaginal swab in a community setup.

Key words: Reproductive tract infections, sexually transmitted infections, prevalence, correlates, practitioner administered blind vaginal swab,