

Prevalence of *Trichomonas vaginalis* and associated risk factors among pregnant women attending antenatal care in government health facilities, Ambo town, Western Oromia in Ethiopia.

Chala Kumsa^{1,2} Asrat Hailu²

Author details

¹ Department of Medical Laboratory Sciences, College of Medicine and Health Sciences, Ambo University, Ambo, Oromia, Ethiopia. ²Department of Microbiology, Immunology and Parasitology, School of Medicine, College of Health Sciences, Addis Ababa University, Addis Ababa, Ethiopia.

Abstract

Background:

Trichomonas vaginalis is one of the causes of non-viral sexually transmitted diseases. This parasite is known to adhere to the human vaginal epithelial cells, surviving for years in the typically acidic and hostile vaginal environment that contains a plethora of microbicidal innate immune factors, and is reinforced by the presence of complex commensal bacteria. Pregnancy is known to be one of the most influencing factors of the genital trichomoniasis. The infection can lead to significant complications in pregnancy. It can cause premature rupture of membranes, preterm labor, low birth weight, and post abortion infections.

Objective: To determine the prevalence of *Trichomonas vaginalis* and assess the associated risk factors among pregnant women visiting ANC unit.

Materials and Methods: A cross sectional study design was conducted among 217 pregnant women attending ANC at four Governmental health facilities found in Ambo town. Socio demographic data and *Trichomonas vaginalis* related risk factors were collected using predesigned questionnaires. Vaginal swab sample was collected and wet mount examination and Giemsa staining method was performed.

Result: A total of 217 pregnant women of age ranging 15 to 44 years with mean age 26.06 ± 4.796 (mean \pm SD) had participated in this study. From this, 38(17.5%) of them tested positive for *T. vaginalis* by Giemsa staining technique while 31(14.3%) tested positive by wet mount examination. *T. vaginalis* infection was most prevalent among the 25-34 years age groups comprising 23(60.5%) of the 38 positive

cases. In relation to occupation, traders were the most infected 7(21.9%). Also, women in the third trimester of pregnancy were observed to be the most infected 16(24.2%). By multivariate analysis, vaginal discharge (AOR = 3.68; 95% CI: 1.5–9, $P < 0.05$) was observed to have significant association with *T. vaginalis* infection.

Conclusion: The prevalence of *Trichomonas vaginalis* at 17.5% among pregnant women, which was observed in this study, is relatively high. The finding of this study supports the need for improved control activities of *Trichomonas vaginalis* infection in pregnant women to reduce adverse reproductive health outcomes associated with Trichomoniasis.