

Mycoplasma Hominis Increases the Risk for *Ureaplasma Parvum* Infection in Human Immunodeficiency Virus Infected Pregnant Women

Nikita Nundlall^{1*}, Bongekile Ngobese¹, Ravesh Singh^{2,3}, Partson Tinarwo⁴ and Nathlee Abbai¹

¹School of Clinical Medicine laboratory, College of Health Science, University of KwaZulu-Natal, Durban, South Africa

²Department of Medical Microbiology, School of Laboratory Medicine and Medical Sciences, College of Health Sciences, University of KwaZulu-Natal, Durban, South Africa

³National Health Laboratory Service, Durban, South Africa

⁴Department of Biostatistics, Nelson R Mandela School of Medicine, University of KwaZulu-Natal, Durban, South Africa.

Published November 28, 2023

ABSTRACT

Background: *Mycoplasma hominis* and *Ureaplasma parvum* have been recently linked to sexually transmitted diseases and other conditions. There are a limited number of studies conducted in South African pregnant women which have assessed the prevalence and risk factors for genital mycoplasmas.

Methods: This study included 264 HIV infected pregnant women attending the King Edward VIII antenatal clinic in eThekweni, South Africa. DNA was extracted using the Pure Link Microbiome kit and pathogens were detected using the TaqMan Real-time PCR assays. The statistical data analysis was conducted in a freely available Statistical Computing Environment, R software, version 3.6.3 using the RStudio platform.

Results: The prevalence of *M. hominis* and *U. parvum*, was 215/264 (81.4%), and 203/264 (76.9%), respectively. In the *M. hominis* positive group, a significantly ($p=0.004$) higher proportion, 80.5% tested positive for *U. parvum* infection when compared to 61.2% among the *M. hominis* negative. Of the *U. parvum* positive women, a significantly ($p=0.004$) higher proportion of women (85.2%) tested positive for *M. hominis* when compared to 68.9% among the *U. parvum* negative. In the unadjusted and adjusted analysis, being *M. hominis* positive increased the risk for *U. parvum* by approximately 3 times more ($p=0.014$) and 4-fold ($p=0.008$), respectively.

Conclusion: This study showed a significant link between *M. hominis* and *U. parvum* infection. To date, there are a limited number of studies that have investigated *M. hominis* being a risk factor for *U. parvum* infection. Therefore, the data presented in the current study now fills in this gap in the literature.

Keywords: *Mycoplasma hominis*, *Ureaplasma parvum*, Human immunodeficiency virus

Corresponding author: Nikita Nundlall, School of Clinical Medicine laboratory, College of Health Science, University of KwaZulu-Natal, Durban, South Africa, E-mail: 217004859@stu.ukzn.ac.za

Citation: Nundlall N, Ngobese B, Singh R, Tinarwo P & Abbai N. (2023) *Mycoplasma Hominis* Increases the Risk for *Ureaplasma Parvum* Infection in Human Immunodeficiency Virus Infected Pregnant Women. J Infect Dis Res, 6(S4): 16.

Copyright: ©2023 Nundlall N, Ngobese B, Singh R, Tinarwo P & Abbai N. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.