ABSTRACT

Unprotected intercourse and seminal discharge are powerful Background. activators of the mucosal immune system and are an important risk factors for HIV transmission. This study was designed to determine if female sex work is associated with changes in the mucosal Cervico vaginal lavage and plasma from 122 HIV immunity.

Methods. uninfected FSW women (FSW) and 44 HIV uninfected low-risk non-FSW from the same socioeconomic district of Nairobi were analyzed for evidence of immune activation (IA). The cervico-mononuclear cells (CMC) were analyzed for cellular activation by flow cytometry. Results. observed in the FSW compared to the low-risk as demonstrated by the lower level of MIP-3α (p<0.001), ITAC (p<0.001), MIG (p<0.001), IL-1α (p<0.001), IL-1β (p<0.001), IL-1Rα (p=0.0002), IL-6 (p<0.001), IL-8 (p<0.001), IL-10 (p=0.01), IP-10 (p=0.0001), MDC (p<0.001), MIP-1α, (p<0.001), MIP-1β (p<0.005), MCP-1 (p=0.03) and TNF-α (p=0.006). Significant differences were noted as early as 1 year following initiation of sex work and increased with duration of sex. This study showed that sex work is associated with work. Conclusion. important changes in the mucosal immune system. By analyzing chemokine/cytokine levels and CMC activation, we observed a lower mucosal IA in HIV uninfected FSW compared to low-risk women.