

## AB004. The role of highly active antiretroviral therapy (HAART) on interleukin 17a (il-17a) in normotensive and pre-eclamptic black South African women

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**Background:** Interleukin 17-A (IL-17A) has been implicated in the pathophysiology of both human immune deficiency virus (HIV) and preeclampsia (PE). This study evaluated serum levels of IL-17A in HIV-negative and HIV-positive normotensive and preeclamptic women receiving highly active anti-retroviral therapy (HAART).

**Methods:** A sample size of 250 was analysed. Normotensives

(n=150; N), pre-eclamptics (n=100; PE). Normotensives were further stratified into HIV negative (n=90), HIV positive (HAART: acute) (n=30) and HIV positive (HAART: chronic) (n=30). The PE group was divided into early onset (n=50; EOPE) and late-onset (n=50; LOPE). The EOPE and LOPE groups were subdivided into HIV negative (n=30), HIV positive (HAART: acute) (n=10), and HIV positive (HAART: chronic) (n=10). Analysis of IL-17A was performed using multiple Bio-Plex immunoassay method.

**Results:** With regards: (I) pregnancy type: the levels of IL-17A were significantly increased in N compared to PE (P=0.0012); (II) gestational age: the levels of IL-17A were significantly different between (N *vs.* EOPE *vs.* LOPE) (P=0.0044). The levels of IL-17A were significantly increased in N compared to the EOPE (P=0.0113) and between N compared to the LOPE (P= 0.0063); (III) HIV status: the levels of IL-17A were significantly increased in HIV negative N compared to LOPE (P= 0.0429). (IV) HAART duration. HAART-chronic: the levels of IL-17A were significantly increased in (N *vs.* PE) (P=0.0086), (N *vs.* EOPE *vs.* LOPE) (P= 0.0179) and N *vs.* EOPE (P=0.0042).

**Conclusions:** The study demonstrates that IL-17A is involved in maintaining normal pregnancy and that reduction in IL-17A is involved in the pathophysiology of PE.

**Keywords:** Highly active antiretroviral therapy (HAART); human immunodeficiency virus; interleukin; pre-eclampsia; pregnancy

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