Gynecol Obstet 2018, Volume: 8
DOI: 10.4172/2161-0932-C1-025

The role of C-peptide in HIV associated pre-eclampsia

Thakoordeen S, Moodley J and **Naicker T**
University of KwaZulu-Natal, South Africa

Globally, pre-eclampsia is a major cause of maternal morbidity and mortality. In South Africa, HIV infection is an obstetric dilemma. During pregnancy, the placenta produces adipokines e.g., C-peptide, which is responsible for activating insulin. Obesity, immune dysregulation and inflammation contributes to an increased prevalence of insulin resistance. Due to the high obesity rate in sub-Saharan Africa and the metabolic adaptations of pre-eclampsia this study assessed the impact of C-peptide in HIV associated pre-eclampsia. Following institutional approval, participants (n=301) were recruited from a large regional hospital and divided into groups: non-pregnant (n=90), normotensive (n=121), early-onset (n=32; EOPE) and late-onset (n=58; LOPE) pre-eclampsia. All groups were stratified by HIV status. Maternal clinical demographics, indications and mode of delivery were recorded. Serum was used to quantify the C-peptide levels using Bioplex multiplex analysis (Bioplex Pro Human Diabetes 10-plex Panel). HIV status did not affect C-peptide levels. There was a significant difference in C-peptide between the non-pregnant versus normotensive pregnant ($p<0.01$) and the normotensive versus LOPE groups ($p<0.01$) albeit being elevated in both the pre-eclamptic groups. There was no significant effect of HIV status on baby weight. Baby weight was lower in the EOPE compared to the LOPE group ($p<0.001$). Body mass index was significantly elevated in normotensive HIV negative compared to normotensive HIV positive women ($p<0.01$). In conclusion, our study is the first to examine C-peptide dysregulation in the triad of HIV infection, pre-eclampsia and obesity. We demonstrate elevated c-peptide in pre-eclampsia whilst C-peptide was not affected by HIV status.

semonethakoordeen@gmail.com

Notes: