Soluble CD14 in early pregnancy, as well as resistin, leptin, TNFR-1, and IL-6 in late pregnancy, were linked to higher postpartum weight, indicating inflammation-related pathways to postpartum obesity in women living with HIV.

RESULTS

• Median age was 32 years (IQR: 29, 35) (Table 1).
• Median weight change between T1 and 48 wks PP was 0.10 kg (IQR: -3.5, 4.5).
• All but three participants had VL <100 copies/mL.
• TNFR-1 (0.60 vs 0.73 ng/mL, p=0.018) and IL-6 (1.09 vs 1.53 pg/mL, p=0.054) significantly increased between T1 and T3 (Figure).
• In models adjusted for age, T1 weight, weight at 2 wks PP, and CD4 count, higher T1 sCD14 levels were associated with higher average PPW over time (β = 0.002, p=0.047), and T3 sCD14 levels with higher PPW gain (β = 0.006, p=0.048) (Table 2).
• Resistin (β = 0.644, p=0.024), leptin (β = 0.329, p=0.036) and TNFR-1 (β = 0.224, p=0.028) at T3 were associated with higher average PPW over time.
• IL-6 at T3 was associated with steeper PPW gain trajectories (β = 0.005, p=0.003) and higher PPW gain (β = 2.627, p=0.009).

CONCLUSIONS

• In our small cohort of South African WLH, we observed that sCD14 in early pregnancy as well as resistin, leptin, TNFR-1 and IL-6 in late pregnancy were associated with higher average PPW over time.
• This suggests a potential role for pathways of inflammation and immune activation in postpartum obesity among WLH.
• Further studies in larger cohorts are warranted to confirm our findings.