

Carotid Intima Media Thickness is increased in adolescent and young adults living with HIV

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Introduction

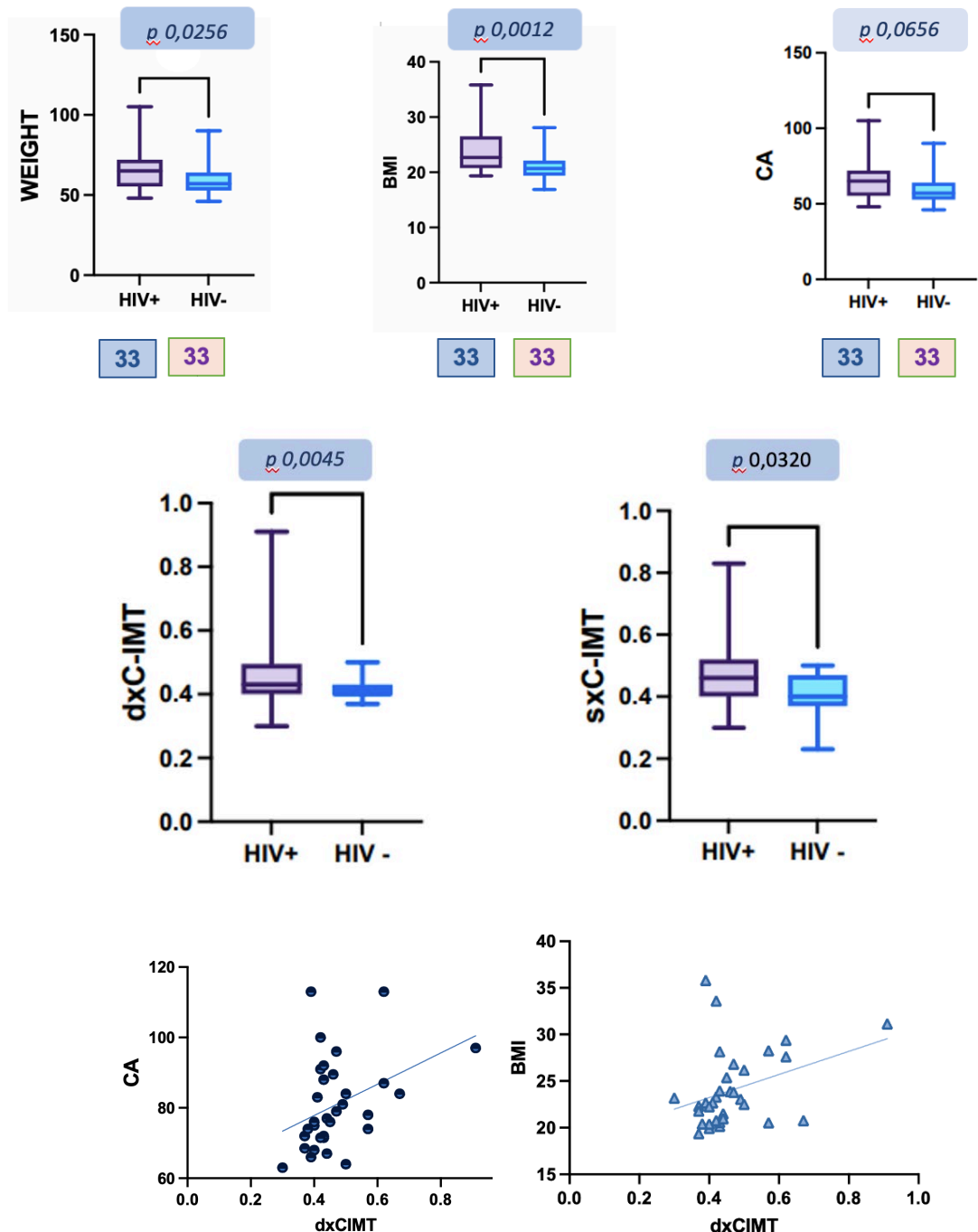
- To date, there are few studies investigating this association in adolescents and young adults with vertically transmitted HIV; it appears to be urgent to stratify as earlier as possible cardiovascular risk in these patients.

Methods

- In our study we enrolled 33 (mean age 25 years, 12 male) vertically transmitted HIV patients aged at least 14 years with good immunovirological control.
- They underwent ultrasound of the supra-aortic trunks with the evaluation of the thickness of the carotid intima-media (IMT).
- The cohort thus identified was compared with a cohort of HIV-negative healthy controls matched for age and sex.

Results

- Comparing PLWH cohort to healthy controls, we found a statistically significant difference in IMT both for right and left carotid, which appears to be greater in the HIV infected cohort, although the values detected are within normal limits.
- Spearman's correlation index was calculated between the mean right and left IMT value and weight, height, BMI, abdominal circumference, systolic and diastolic blood pressure in ortho and supine position, cholesterol (total, LDL, HDL, non-HDL), triglycerides, fasting blood glucose, basal insulin, HOMA-index, glycated hemoglobin, CD4+ lymphocyte count and average over the years elapsed since the initiation of ART therapy.



- No correlation was found for the left IMT value. There was a significant correlation with abdominal circumference ($r = 0.42$) (p value 0.012) and BMI ($r = 0.36$) (p value 0.03) with right IMT.

Conclusion

- Our study revealed an increase of IMT in the PLWH cohort, while remaining within the normal range, apparently related to the patient's metabolic state. Further data are needed to support these preliminary data.

References

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