



# CARDIOVASCULAR RISK IN HEALTHY SUBJECTS EVALUATED WITH GENETIC TEST AND CAROTID ECOGRAPHY.

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## • BACKGROUND AND AIM

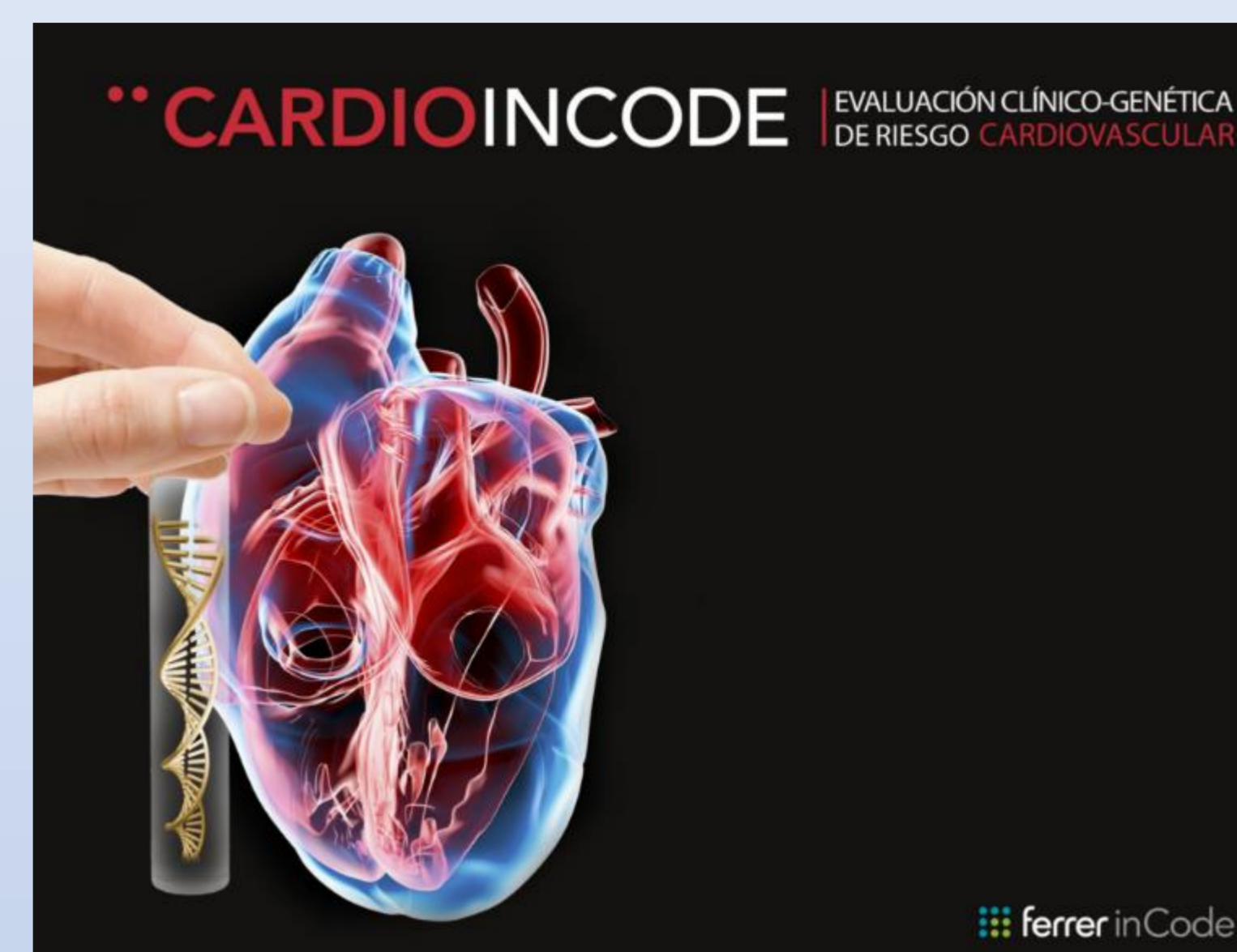
- Evaluate cardiovascular risk (CVR) in healthy patients with genetic test (Cardio inCode check), and carotid echography

## MATERIAL AND METHODS

We include a cohort of 94 subjects (medium age 53 years 0.911, and male 73.5)

We evaluate CVR with genetic test (Cardio inCode check that evaluated cardiovascular age and global cardiovascular risk - using clinically validated genetic score) and with carotid echography (intima-media thickness in left -IMTLC- and right -IMTRC- carotid). We evaluate levels of Glucose, Triglycerides, Total, HDL and LDL cholesterol, uric acid, creatinine (mg/dL) and creatinine clearance (ml/min) (MDRD-4 and CKD-EPI).

Use SPSS 20.0.



## RESULTS

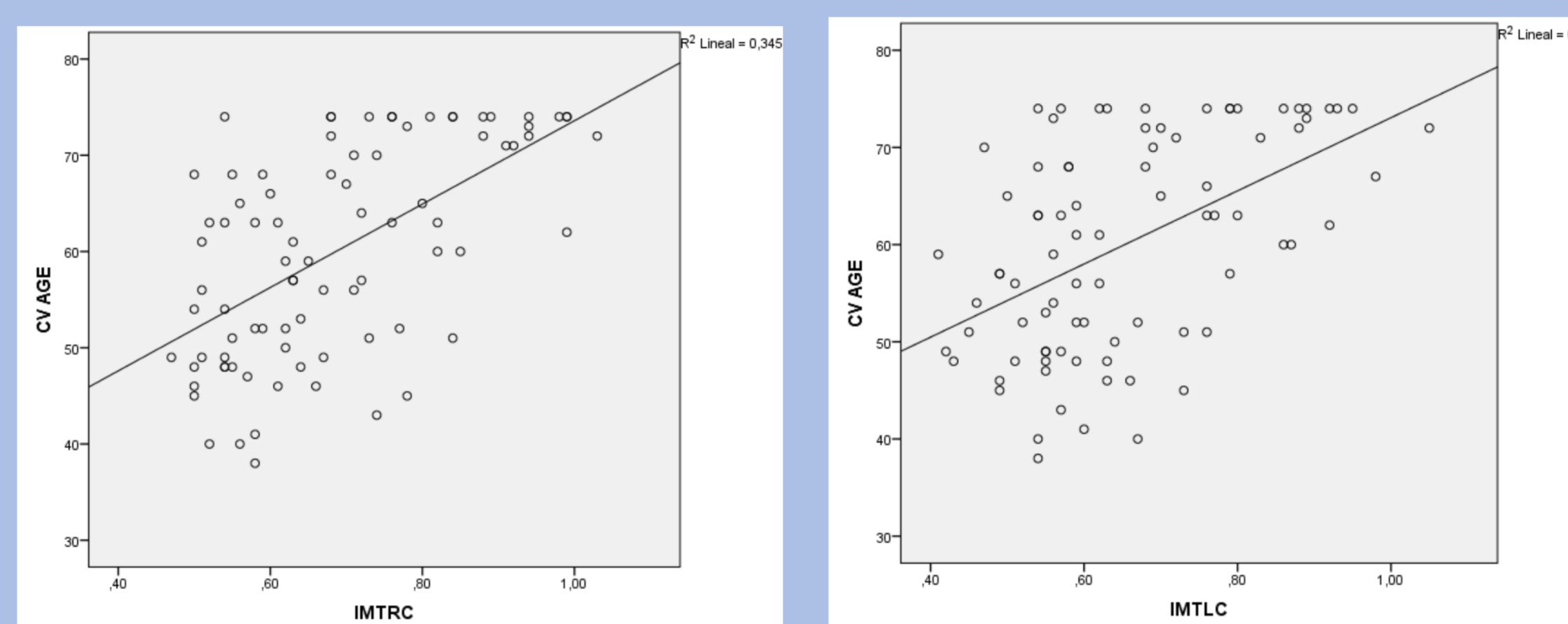
Markers of CVR measure with Cardio inCode are associated with intima media thickness. CKD-EPI are better associated with Cardio in Code than MDRD. Metabolic parameters (except cholesterol) are associated with Cardio inCode and intima media thickness. Intima media thickness in left carotid is better than in right carotid to evaluate CVR (Table 1)

Table1

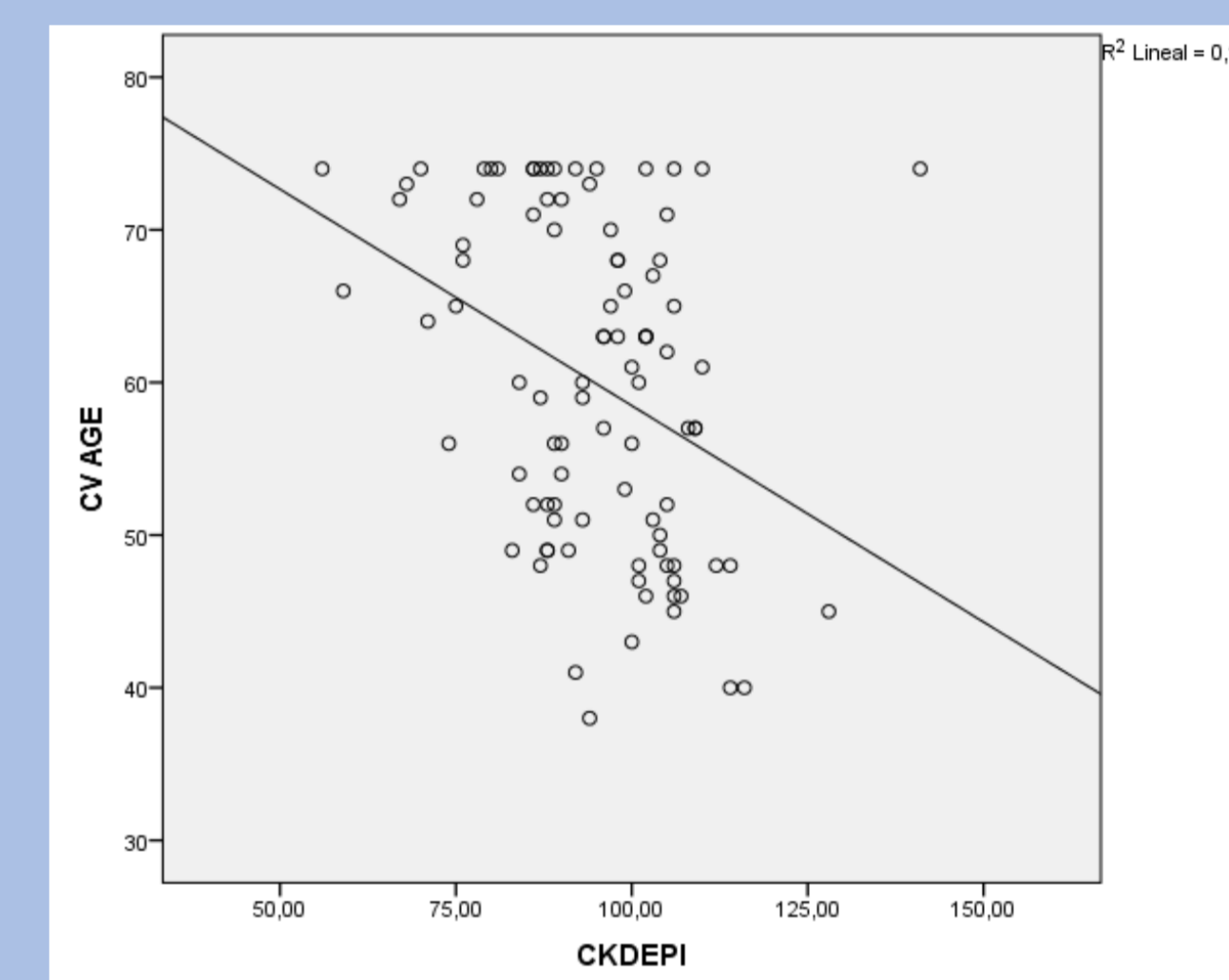
|             | AGE    | CVAGE  | GCVR  | IMTLC | IMTRC |
|-------------|--------|--------|-------|-------|-------|
| IMTLC r     | 0.499  | 0.588  | 0.492 |       |       |
| p           | 0.001  | 0.001  | 0.001 |       |       |
| IMTRC r     | 0.493  | 0.511  | 0.398 |       |       |
| p           | 0.001  | 0.001  | 0.001 |       |       |
| CR r        | ns     | 0.269  | ns    | ns    | ns    |
| p           |        | 0.009  |       |       |       |
| CKD-EPI r   | -0.364 | -0.361 | ns    | ns    | ns    |
| p           | 0.001  | 0.001  |       |       |       |
| MDRD-4 r    | ns     | ns     | ns    | ns    | ns    |
| p           |        |        |       |       |       |
| GLUCOSE r   | ns     | 0.272  | 0.224 | 0.254 | 0.214 |
| p           |        | 0.008  | 0.031 | 0.020 | 0.051 |
| TG r        | ns     | 0.360  | 0.453 | 0.400 | 0.241 |
| p           |        | 0.001  | 0.001 | 0.001 | 0.027 |
| URIC ACID r | ns     | 0.376  | 0.353 | 0.242 | ns    |
| p           |        | 0.001  | 0.001 | 0.027 |       |

CVAGE: CARDIOVASCULAR AGE. GCVR: GLOBAL CARDIOVASCULAR RISK. IMTLC: INTIMA MEDIA THICKNESS LEFT CAROTID IMTRC: INTIMA MEDIA THICKNESS RIGHT CAROTID.

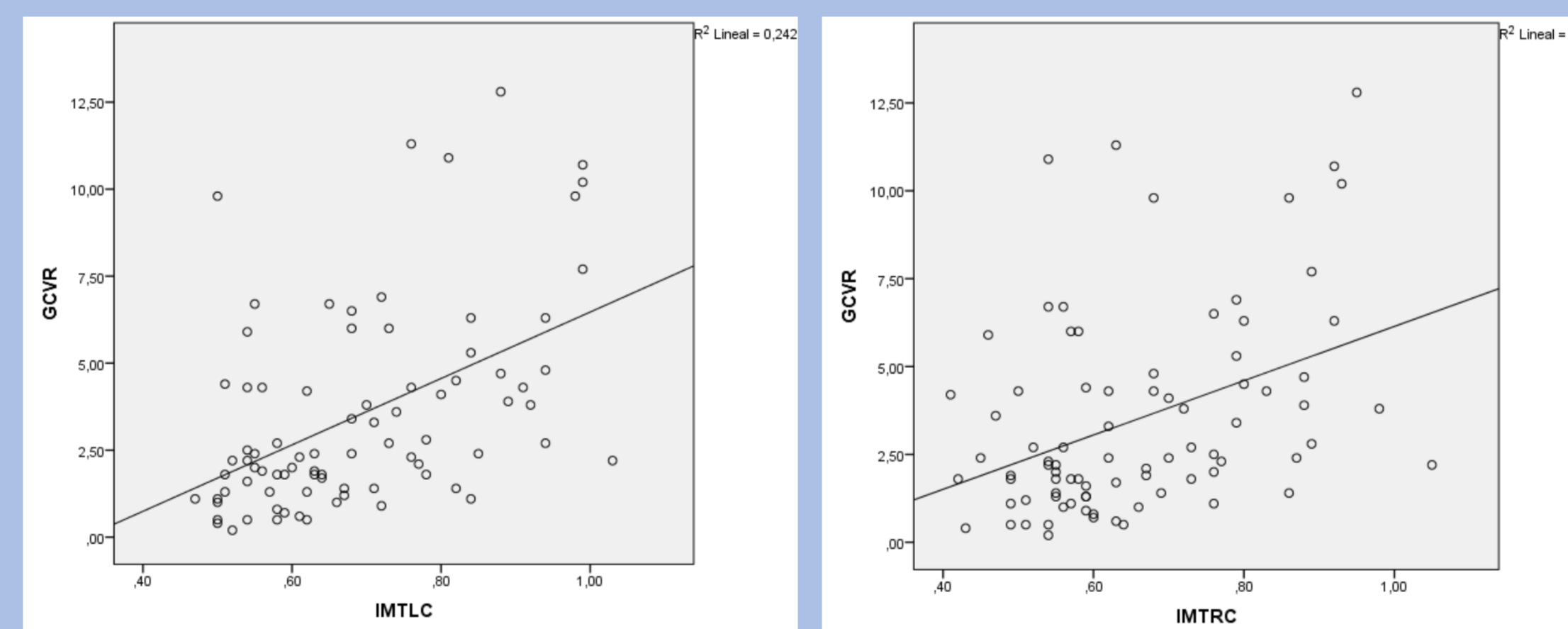
## CORRELATION CARDIOVASCULAR AGE AND INTIMA-MEDIA THICKNESS



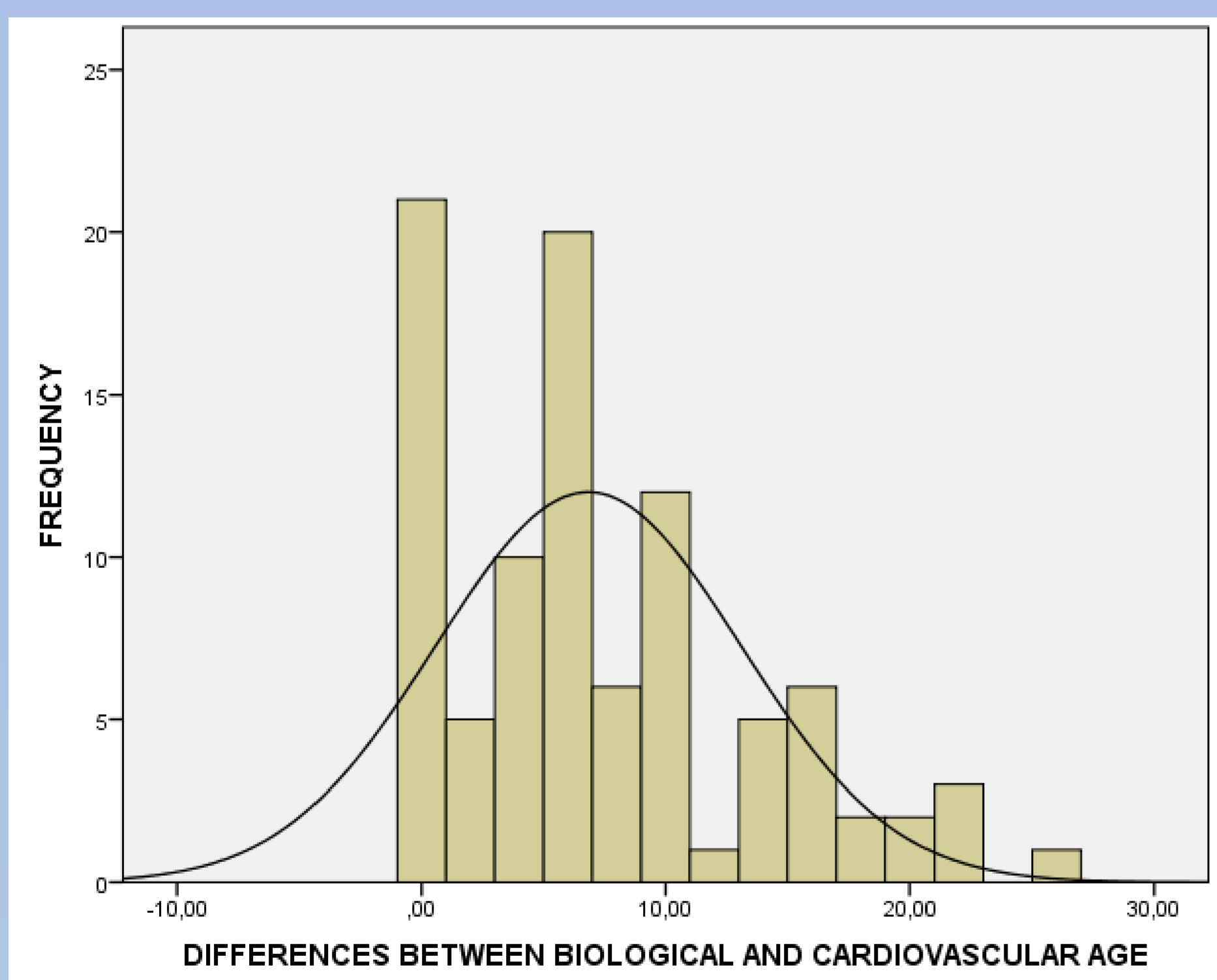
## CORRELATION CARDIOVASCULAR AGE AND CKD-EPI



## CORRELATION GLOBAL CARDIOVASCULAR RISK AND INTIMA-MEDIA THICKNESS



## DIFFERENCES BETWEEN BIOLOGICAL AGE AND CARDIOVASCULAR AGE



|         | DBACVA |
|---------|--------|
| IMTLC r | 0.294  |
| p       | 0.007  |
| GCVR r  | 0.363  |
| p       | 0.001  |

DBACVA: DIFFERENCES BETWEEN BIOLOGICAL AGE AND CV AGE

## CONCLUSIONS

In healthy subjects we can evaluate CVR with Cardio inCode and carotid echography. This CVR is associated with metabolic parameters (especially glucose, triglycerides and uric acid) and genetic factors.

Intima media thickness and renal function with CKD-EPI, is better associated with Cardio inCode cardiovascular age calculated.

More differences between biological and cardiovascular age are associated with CVR.

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