

# PREDICTING EARLY CARDIOVASCULAR RISK IN OBESE CHILDREN BASED ON ANTHROPOMETRY

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## AIM OF THE STUDY

Early predictors of cardiovascular risk using anthropometric and laboratory variables available in the general practice in obese children are poorly identified. Aim of the study was to identify best predictors of early cardiovascular risk in obese children between anthropometric and laboratory parameters

## METHODS

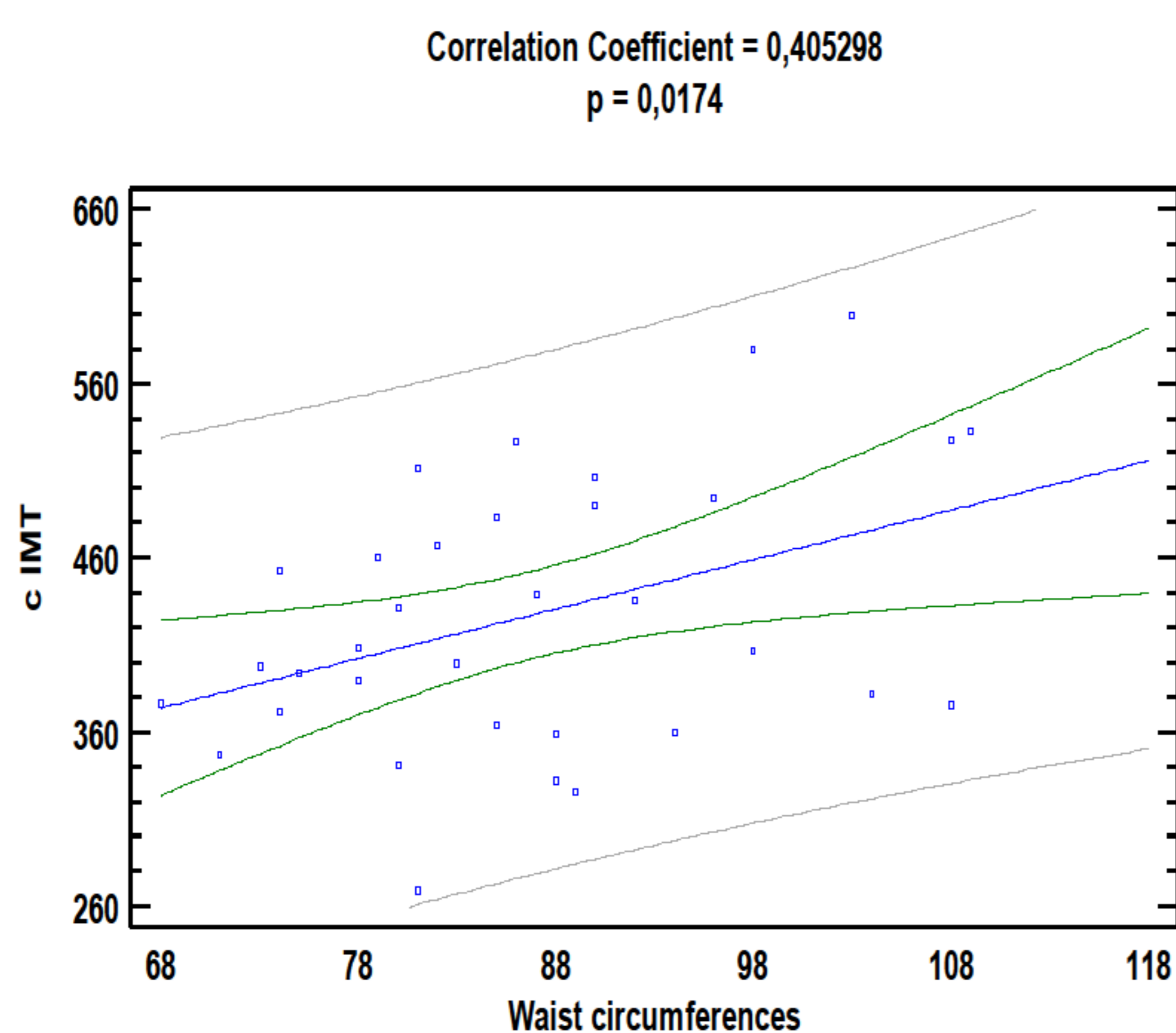
Between March 2014 and February 2015 we conducted a prospective study of 43 children (age 5.10-16.11 years; M:F 23:20) affected by severe obesity defined as BMI > 97 C based on Italian chart. We measured height, weight, hip and waist circumferences, W/H ratio; Height SDS, BMI SDS, waist and hip circumferences centile were also calculated.

All subjects underwent ultrasonographic evaluation in order to measure intima – media – thickness of the right common carotid artery (cIMT)

Simple and Multiple linear regressions were used to identify which of the anthropometrics or laboratory parameters contribute more to the determination of cardiovascular risk, valued with cIMT.

A p-value < 0.05 was considered as statistically significant.

## RESULTS



Dependent variable	Independent variables	p-value
cIMT	Waist circumference	0.0012
	Hip circumference	0.0124
<b>F- ratio = 7,26; p-value = 0,0026</b>		

The analysis shows a statistically significant correlation between cIMT and anthropometric parameters: waist circumference and hip circumference.

## CONCLUSIONS

The easy and non-invasive measurement of waist and hip circumferences may help paediatricians to estimate early cardiovascular risk in obese children in the clinical practice.

## REFERENCES:

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