



CARDIOVASCULAR RISK MARKERS IN METABOLICALLY HEALTHY AND METABOLICALLY UNHEALTHY OBESE ADOLESCENTS

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POPULATION and METHODS

Lean healthy (LH), n=23

Metabolically healthy obese (MHO),

n = 145
Mean age

13,78±2,63 SD

14,07±2,93 SD

Metabolically unhealthy obese (MUO),

n = 62

13,51±3,19 SD

No gender and age differences

History, lifestyle, psychology (Beck-Youth)

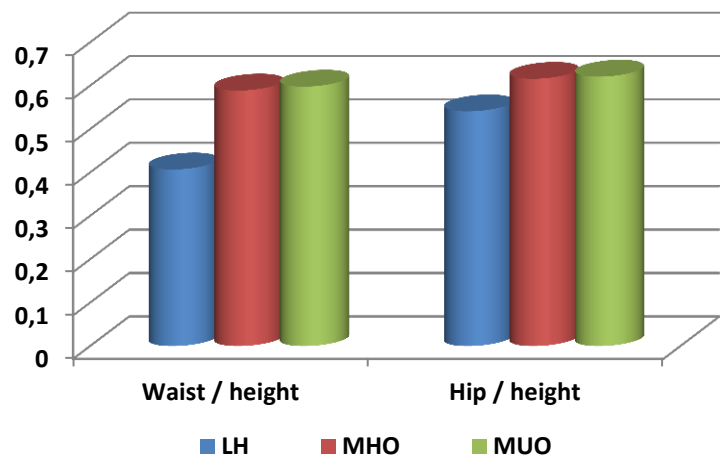
Metabolic parameters (lipids, OGTT, AUC, Fasting Insulin, HOMA-IR)

Left ventricular geometry and function, 24-hours BP monitoring, carotid intima-media thickness (CIMT)

Pediatric Metabolic Syndrome IDF criteria for grouping

RESULTS

NO DIFFERENCE IN FAT DISTRIBUTION IN MHO VS. MUO



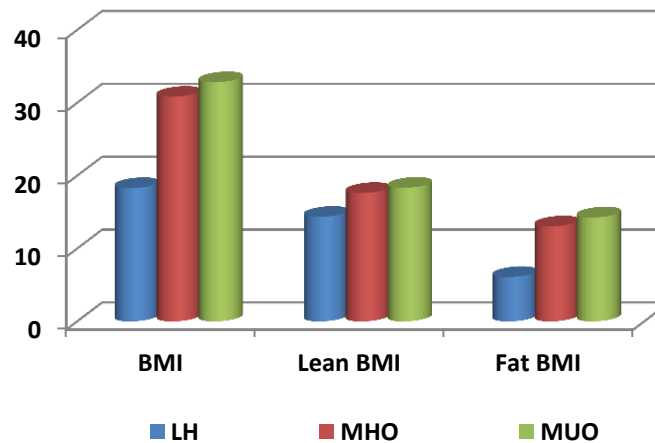
p<0,01

LH vs. MHO and LH vs. MUO

p>0,01

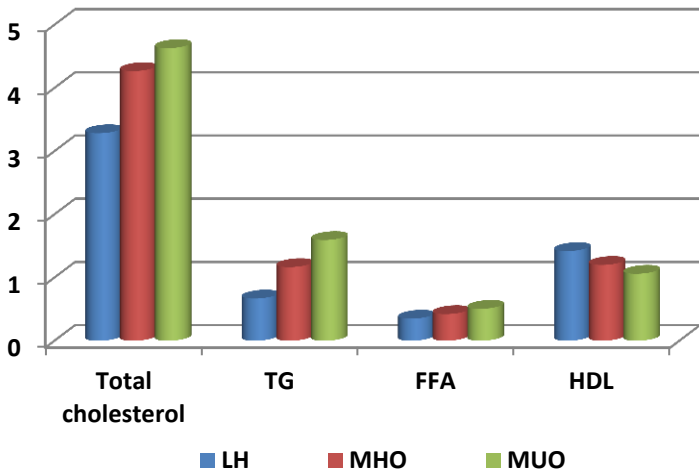
MHO vs. MUO

BMI DUE TO FAT MASS GREATER IN MUO VS. MHO



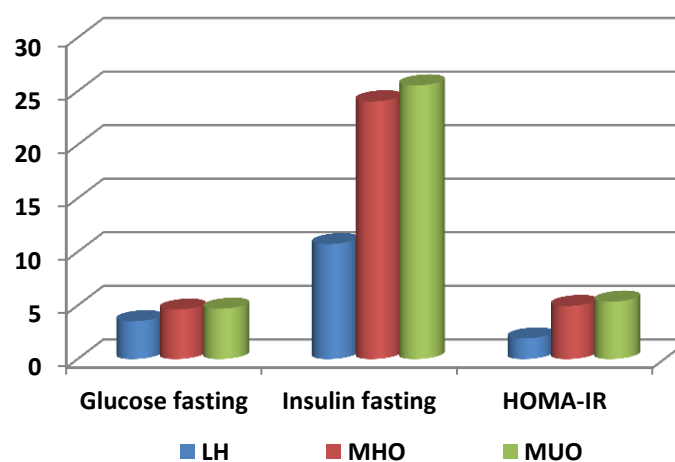
p<0,01 for all except Lean BMI MHO vs. MUO

LIPIDS MORE DETERIORATED IN MUO VS. MHO



p<0,01 for all except FFA LH vs. MHO

NO DIFFERENCE IN FASTING CARBS IN MHO VS. MUO



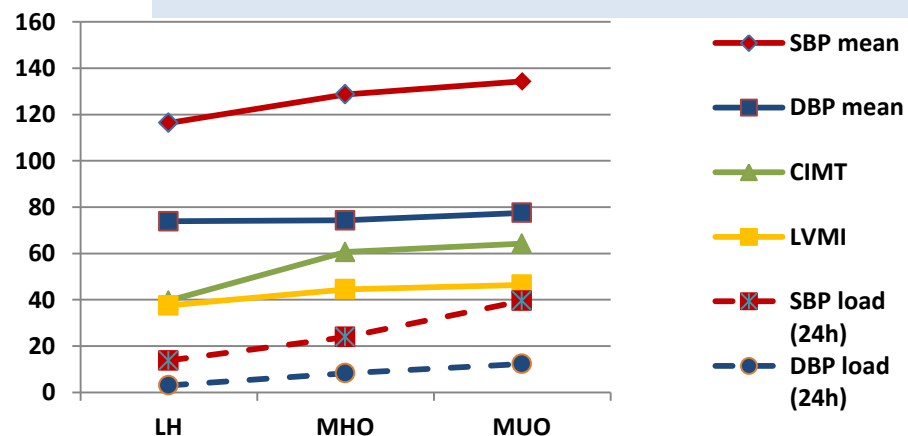
p<0,01

LH vs. MHO and LH vs. MUO

p>0,01 MHO vs. MUO

SBP, MIOCARDIAL MASS AND CIMT ARE GREATER IN OBESE VS. LH

SBP MEAN AND SBP LOAD ARE GREATER IN MUO VS. MHO



PROGNOSTIC CAPABILITY OF IDF CRITERIA FOR THE MS

TO SCREEN OBESE CHILDREN WITH CARDIOVASCULAR RISK

Criteria	Specificity	Sensitivity	PPV	NPV	Prognostic value
IDF	0,96	0,28	0,96	0,29	0,62

Patients who had at the same time hypertension, myocardial hypertrophy, CIM thickening were marked as "risky" and stateless - as "not risky"

CONCLUSIONS

1. Independent cardiovascular risk markers such as myocardial hypertrophy, carotid vessels thickening and systolic hypertension are present in both metabolically healthy and unhealthy individuals
2. Vast majority of obese display difference by main lipid and carb parameters vs. lean healthy ones and mild dyslipidemia, impaired glucose load with insulin resistance are between them
3. The more sensitive criteria than IDF ones are necessary for the identification of metabolically healthy obese children.