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EDITORIAL

It is Possible that there is a Phenotype of the Metabolic Syndrome in Infants

Fernando Aguirre Palacios*

Hospital Clínica Kennedy Policentro, Guayaquil, Ecuador

***Corresponding author:** *Fernando Aguirre Palacios, Md, MSc, Hospital Clínica Kennedy Policentro, Guayaquil, Ecuador*

This editorial is dedicated to obesity, overweight, and sedentarism in infants. The original work was published a few months ago in the Journal of Hypertension and Vascular Risk [1], with the intention of initiating a global campaign to address the pandemic of obesity from an early age, looking for measurement tools that allow monitoring of intervention programs aimed at reducing it. The intention of the present work was to find the simplest proposal, innovative, and novel, to screen, kids with a high risk of MS. This might be used as a simple tool to train the interested staff, and easier to socialize in America and the world.

Premise 1

Obesity is a pandemic that tends to perpetuate itself in humanity. As a result of obesity and sedentary lifestyle, dyslipidemia and insulin resistance will generate high blood pressure, which will lead to cardiovascular disease with all its diverse expressions up to coronary disease, heart failure and death. We can presume that its inception occurs in childhood [2-4].

Premise 2

Can we presume the existence of metabolic syndrome since childhood?

Of course, but: the timing of the application of screening can only start in the Tanner V period of the child's developmental maturity, to achieve stability of the analytical results, that is, after 12 to 15 years on average. The menarche in females will be the light that announces the beginning of the change of the hormonal cycle [3,4]. Before that, the body is going through its natural growth cycle, and the hormones interact in the metabolic profiles generating unstable the results [5,6].

Premise 3

Is it possible to recognize a phenotype of the metabolic syndrome?

Of course, but: In our description, we say that 1. Sedentary lifestyle, or physical inactivity is the first feature that demonstrates a lifestyle harmful to the child; 2. It is possible that along with this, the distribution of body fat and musculature is modified Waist/height indicator > 0.50 and 3. Blood pressure above the 90th percentile and shown in 3 measures rheological changes are initiated in the vasculature of the body incrementing BP [7].

Premise 4

And the mathematical support of vascular inflammation, lipids and pressure were compatible?

Of course, but: In our study, all the inflammatory markers were triggered in unison with this triad examined. The lipids, with the elevation of HDL > 45 or increase of triglycerides > 100, PCR, interleukin 6, were mathematically sensitive in the analysis of the ROC curve, as well as values of baseline blood pressure above the 90th percentile in 3 consecutive measures [8].

12.6% of our children tested positive for the Dx of metabolic syndrome in our sample, which is of great concern and encourages us to apply coordinated measures of lifestyle change in our city. At the moment, we have 6 schools involved in educational training processes with a simple model of play games, and daily nutrition in agreement with school authorities and parents [9-11].

Final Premise

It is essential to replicate the present finding and

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validate it in Latin America since a pattern of atherogenic dyslipidemia is very different from that we have seen from the North American population described in PURE Study, and is not the purpose of the present editorial. The present study needs to be validated with a cohort population in which the values of Insulin, HOMA and Glycemia are demonstrated in children positive for the present phenotype of MS. Latin America needed to confirm the present findings, interested in improving the health of humanity and improve the quality of life of our population.

References

1. Aguirre FP, Coca A, Aguirre MF, Celis G (2018) Waist-to-height ratio and sedentary lifestyle as predictors of metabolic syndrome in children in Ecuador. Hipertens y Riesgo Vasc 35: 101-109.
2. Koskinen J, Magnussen CG, Sabin MA, Kähönen M, Hutri-Kähönen N, et al. (2014) Youth overweight and metabolic disturbances in predicting carotid intima-media thickness, type 2 diabetes, and metabolic syndrome in adulthood: The cardiovascular risk in young finns study. Diabetes Care 37: 1870-1877.
3. De Ferranti SD, Gauvreau K, Ludwig DS, Neufeld EJ, Newburger JW, et al. (2004) Prevalence of the metabolic syndrome in American adolescents findings from the third national health and nutrition examination survey. Circulation 110: 2494-2497.
4. Singh Y, Garg MK, Tandon N, Marwaha RK (2013) A study of insulin resistance by HOMA-IR and its cut-off value to identify metabolic syndrome in urban Indian adolescents. J Clin Res Pediatr Endocrinol 5: 245-251.
5. Marshall WA, Tanner JM (1969) Variations in pattern of pubertal changes in girls. Arch Dis Child 44: 291-303.
6. Marshall WA, Tanner JM (1970) Variation in the pattern of pubertal changes in boys. Arch Dis Child 45: 13-23.
7. Ball G, Weigensberg MJ, Cruz ML, Gabriel Shaibi, Kobaissi HA, et al. (2005) Insulin sensitivity, insulin secretion and β-cell function during puberty in overweight Hispanic children with a family history of type 2 diabetes. International Journal of Obesity 29: 1471-1477.
8. Austin Bradford Hill (1965) The environment and disease: Association or causation? Proc R Soc Med 58: 295-300.
9. Brambilla P, Bedogni G, Heo M, Pietrobelli A (2013) Waist circumference to height ratio predicts adiposity better than body mass index in children and adolescents. Int J Obes (Lond) 37: 943-946.
10. Fernando Aguirre P, Alberto Morales S, MF Aguirre, Antonio Coca, Gregory Celis (2018) Can a Simple Physical Questionnaire Detect Metabolic Syndrome?. EC Cardiology 5: 28-30.
11. Karen J. Coleman, Claire Lola Tiller, Jesus Sanchez, Edward M. Heath, Oumar Sy, et al. (2005) Prevention of the Epidemic Increase in Child Risk of Overweight in Low-Income Schools. The El Paso Coordinated Approach to Child Health. Arch Pediatr Adolesc Med 159: 217-224