Risk factors for cardiovascular disease in school age children and teenagers

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Objectives: To detect and to prevent cardiovascular risk factors as: overweight, obesity and hypertension in school age children and teenagers.

Methods: We investigated 3747 pupils, 6-18 yo., from different schools from Timisoara, measuring: weight, height, BMI and blood pressure. A questionnaire regarding nutritional behavior and physical activity was completed.

Results: There were 2150 girls and 1532 boys in the study, 2744 (73%) from the city and 1003 (27%) from the village. Overweight was found in 20.66% boys and 17.6% girls. Obesity was found in 16.7% boys and 9.16% girls. Overweight and obese boys were equal in both areas, but obese girls were less in town girls. Hypertension was detected in 399 urban children (10.65%) and only in 40 (3.98%) of rural. From the urban area, 47.6% were girls and 52.4% were boys with hypertension. From the village area, 32.5% were girls and 67.5% were boys with hypertension. Increased BMI was found in 172 hypertensive children from town, and in only 17 hypertensive children from village. Overweight in hypertensive children was found in 61 boys and 35 urban girls, in comparison with only 8 boys and 2 village girls. Obesity was present in 51 hypertensive boys and 25 town girls, in comparison with only 1 hypertensive boy and 6 hypertensive girls from the village. The values of hypertension were analyzed with charts. Fast food eating, sandwiches, snacks and sweet drinks were preferred by children from town. Playing outside the house was more frequent in the village group. PC and static play was more frequent in the town group.

Conclusions: Obese boys were dominant in urban boys group. Girls were more interested in better look than boys. Hypertension was detected especially in urban children. Children from village eat healthier and do more physical activity. Risk factors for cardiovascular disease are dramatically high in urban children, especially boys, because of fast food eating, snacks, sweet drinks and sedentariness. After this study, a web site for informing and instructing the children and their families, regarding the cardiovascular risk prevention was promoted by our hospital in the schools from Timisoara.