

D Guttadoro, R Mercurio, M Podagrosi, A Grimaldi, A Giacomini, RE Papa, A Vania. *Dept of Paediatrics and Paediatric Neuro-Psychiatry, 'Sapienza' University of Rome, Rome, Italy*

Methods A sample of 856 children (396M), aged 10.29±2.77, was divided into 3 groups according to maternal GWG (group A, inadequate=323; group B, adequate=250; group C, excessive=283). They were compared for BW, z-BMI and WtHR.

According to maternal education level, we also assigned patients to 3 different groups (PS: primary school; SS: secondary school; GR: graduation), assessing the relationship with GWG, BW, z-BMI and WtHR.

Results Statistics show a different prevalence of adequate BW children (2.500–4.199kg), in B(92%), A(89%) and C(88%), and of WtHR (A=0.59±0.058; B=0.58±0.05; C=0.59±0.05). Student's t-test has p<0.05 between both inadequate (A-C) and adequate GWG (B) for both parameters.

About z-BMI, only the comparison between A and C is significant (A=1.96±0.57; C=2.07±0.49; p=0.026).

GWG also shows significant differences in PS (15.39±8.67) and SS (14.93±7.24) vs. GR (13.19±6.12). The same for z-BMI in PS (2.08±0.61) and SS (1.937±0.48), and in PS and GR (1,915±0.48).

Conclusions We can confirm the positive relationship between inadequate GWG and inadequate BW in children, and the increased risk of OW/OB. Besides, there is strict relationship between low maternal cultural level and inadequate GWG, and increased risk of OW/OB outcome.

A strict anthropometric surveillance of pregnant women is desired, to prevent offspring's future malnutrition in excess.

Bibliography

1. Fraser A et al. *Circulation* 2010; 121:2557–2564.
2. Schack-Nielsen KF et al. *Internat J Obes* 2010; 34:67–74.
3. Olson CM et al. *Matern Child Health J* 2009; 13:839–846.
4. Oken E et al. *Am J Obstet Gynecol.* 2007; 196:322.e1–322.e8.
5. Oken E et al. *Obstet Gynecol.* 2008; 112:999–1006.

1423 PREVALENCE OF SECONDARY DYSLIPIDEMIA IN OBESE CHILDREN

doi:10.1136/archdischild-2012-302724.1423

M Inalhan, C Mehmet, Y Feyza, A Ozlem, T Ozlem, S Çakmakçı. *Zeynep Kamil Obstetrics and Gynecology and Paediatrics Training and Research Hospital, Istanbul, Turkey*

Objective In this study, we aimed to determine the frequency of dyslipidemia secondary to childhood obesity which has rapidly increasing prevalence in recent years and compare lipid profiles in obese and nonobese children.

Methods We scanned children between 2 to 16 years old whom appears were obese and the patients who has BMI above 95. percentile were included in study. These children's weight, height and BMI were determined and fasting serum triglyceride, cholesterol, HDL and LDL levels were measured and compared with the control group of 124 children in the range of similar age with normal BMI. In our study the mean values of total cholesterol and triglyceride levels of obese children were significantly higher than the control group and obesity was significantly associated with high total cholesterol (44.5%), triglyceride elevation (48.7%), LDL cholesterol elevation (38.7%) and HDL (23.5). In obese children the total cholesterol, triglyceride, LDL cholesterol and HDL cholesterol levels were significantly higher than the control group. A total of 62.6 % of the obese children showed an abnormal lipid profile. In case abnormal lipid profile was significantly higher than the control group.

Conclusion Obese children are at risk of dyslipoproteinemia and related diseases.

These findings demonstrate the importance of proper screening and early diagnosis of childhood obesity to prevent potential

complications of obesity and dyslipidemia in both childhood and adult age.

1424 TWO SIDES OF THE SAME COIN: OPPOSITE PATHS IN PATIENTS TREATED WITH THE SAME STRATEGY

doi:10.1136/archdischild-2012-302724.1424

¹A Piedimonte, ²M Podagrosi, ³R Mercurio, ²A Mosca, ²AM Caiazzo, ²A Vania. *¹Institute of Nutrition; ²Dept. of Paediatrics and Paediatric Neuro-Psychiatry, "Sapienza" University of Rome, Rome, Italy*

DG(13 years), family-history hypertension(IA), dyslipidemia, CVD; MG(14 years), family-history IA, both Tanner IV.

Different school conducts-integration (DG:restless-good, MG: good-problematic); ~7h/day of sedentary, MG is solitary, DG wishes to be more social, trains(~6hrs/week) and walks.

No breakfast; junk food, or absent(MG); lunch and dinner alone or in family(MG); extra-snacks; soft-drink≥1/day. Both do nutritional mistakes.

Abstract 1424 Table 1

TO	z-BMI	W	WtHR	BP	Enlarged liver	HDL-C	LDL-C	Tg	U.S. Steatosis
DG	2,26	99	0,60	90/70	2 cm	29	-	269	mild
MG	2,39	107	0,60	110/70	2 cm	-	-	255	focal

W:waist; WtHR: waist-to-height ratio; U.S.: liver ultrasound; (unreported values:normal).

Both get balanced hypocaloric diet(1350kcal/day) and are pushed into sport.

Abstract 1424 Table 2

	after	z-BMI	W	WtHR	BP	HDL-C	LDL-C	Tg
DG	3 months	1,84	91,7	0,54	105/50			
	6	1,72	86,6	0,51	105/50			
	9*	1,74	89,5	0,53	105/50			
	12	1,33	77,6	0,45	120/60	-	-	-
MG	3 months	2,40	109,5	0,61	120/65			
	6	2,43	109,8	0,62	140/80			
	9	2,44	111,5	0,62	120/70			
	12	2,47	115	0,64	120/70	31	128	194

*DG increased sport(~4hrs/week), started having breakfast.

Conclusions At T₀ DG seems in a worse situation: this prompts him to better comply, with a general improvement.

MG ignores his health status, perpetuating incorrect lifestyles, showing deterioration, acquiring risk factors for MS (HDL-C, BP, W).

Even with similar initial status and similar strategy for both, the totally different results stress the importance of patients' compliance, even if still unable to plan future.

1425 THE RELATIONSHIP OF OBJECTIVE MEASURE OF SLEEP PATTERN AND ITS ASSOCIATION WITH OBESITY IN PRIMARY SCHOOL CHILDREN IN TEHRAN CITY

doi:10.1136/archdischild-2012-302724.1425

¹A Saber Gharamaleki, ²A Zamani, ³M Hosseini, ⁴K Jaafarian. *¹Faculty of Health and Nutrition, Students' Research Committee, Tabriz University of Medical Science, Tabriz; ²Department of Nutrition and Biochemistry; ³Department of Epidemiology and Biostatistics, Tehran University of Medical Sciences; ⁴Department of Nutrition and Biochemistry & Department of Epidemiology and Biostatistics, School of Public Health, Tehran University of Medical Science, Tehran, Iran*