EPIDEMIOLOGICAL SURVEY ON BLOOD PRESSURE, SERUM LIPIDS AND OBESITY IN PRIMARY SCHOOL CHILDREN IN A RURAL VILLAGE—SHUAN SHI VILLAGE OF TAIPEI COUNTY

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The aims of the study were to determine the distribution of height, weight, blood pressure, serum cholesterol and triglyceride levels and to investigate the interrelationship among obesity, blood pressure and serum lipids. We surveyed all the children in 4 primary schools in Shuan Shi Village, Taipei County in 1987. The sample size was 1159 which represent 98.6% of all the primary school children in the area. We measured their height, body weight, blood pressure, thickness of the triceps skinfold. Fasting serum cholesterol and triglyceride levels were also analyzed. The results showed that height, body weight, blood pressure, thickness of the triceps skinfold as well as serum cholesterol increased with the age of the subjects. The level of triglycerides was also found to increase with age after 9 years old. Children in this study had lower mean levels of body height, body weight and serum triglyceride and higher mean levels of systolic blood pressure than Taipei city children surveyed in 1982. The overall pervalence of obesity was 10.2%. Slighty obese cases were 3.5%, 3.9% moderately obese and 2.8% were very obese. The children who were obese did have significantly higher blood pressure, height, serum cholesterol or triglyceride levels, thickness of the triceps skinfold or forearm circumference. The prevalence of hypertension was 2.1%, even incluluding 17 people (1.5%) who only had an elevated systolic blood pressure, 6 people (0.5%) who only had an elevated diastolic blood pressure and one subject (0.1%) had both a high systolic and diastolic pressure, which was heigher than result of Taipei city study (0.5%). The data for height, body weight, thickness of triceps skinfold and forearm circumference of the hypertensive children were higher than corresponding figures in normotensive subjects. However, serum cholesterol and triglycerides were not significantly different. The overall prevalence of hypercholesterolemia of the children was 10.9% which was higher than result of Taipei city study (6.6%). The values for body weight and serum triglycerides were all higher than in the normal subjects. The overall prevalence of hypertriglyceridemia in the children was 2.2% which was closed to result in Taipei (2.4%). Their height, body weight, serum cholesterol, thickness of triceps skinfold and forearm circumference were all significantly higher than normal subjects.

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