we assessed weight, height, BMI and z-BMI at diagnosis and 1 year later. We also investigated the compliance with the prescribed food program and GFD, then selecting only patients with strict adherence to GFD, and subdividing them into 2 groups: A (balanced diet) and B (non-controlled diet).

**Results** The characteristics of A and B, as in Tab.1, show a reduction of z-BMI (Δz-BMI= -0.49±0.41) in all patients of group A, while in group B (Δz-BMI= -0.28±0.54) the z-BMI increased in 2 cases and reduced in 6, but less than in A.

**Conclusions** Probably due to the small number of cases, the differences in the z-BMI changes between OCC with a balanced GFD and those with a non-controlled GFD are not significant. Nonetheless, we assert that is fundamental that these patients follow an adequate diet, especially to avoid the worsening of a state of malnutrition in excess, often already present at the diagnosis.

Abstract 1418 Table 1

<table>
<thead>
<tr>
<th>Group (M and F)</th>
<th>Age of diagnosis</th>
<th>z-BMI at diagnosis</th>
<th>z-BMI at follow-up</th>
<th>Δ z-BMI</th>
<th>follow-up length</th>
</tr>
</thead>
<tbody>
<tr>
<td>A group (4M and 6F)</td>
<td>11.35±3.79</td>
<td>1.93±0.69</td>
<td>1.44±0.1</td>
<td>-0.48±0.41</td>
<td>11.62±1.68</td>
</tr>
<tr>
<td>B group (3M and 5F)</td>
<td>9.12±4.26</td>
<td>1.88±0.53</td>
<td>1.57±0.96</td>
<td>-0.28±0.54</td>
<td>12.62±1.60</td>
</tr>
</tbody>
</table>

**1420** EXAMINATION OF THE RELATION OF DIET AND PHYSICAL ACTIVITY WITH THE APPEARANCE OF OBESITY AT GREEK STUDENTS

doi:10.1136/archdischild-2012-302724.1420

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**Background** Childhood obesity increases the likelihood of several consequences for a child (precocious puberty, polycystic ovary syndrome, diabetes mellitus type 2, etc) and also later in adulthood (increased mortality due to cardiovascular disease, diabetes mellitus, etc).

**Aim** The aim of the current study was to investigate the prevalence of overweightness and obesity among Greek students and to determine the correlation between diet and physical activity.

**Results** Cross-correlation between overweight and obese children and sex showed that more males (9.2%) are obese than females (5.3%). The rate of overweight children was at 25.9%, of obese children at 7.3% and the rate of central obesity was 35.5%. Regarding children that did not follow a healthy diet in school, 31.4% of them were overweight or obese and 33.6% had central obesity; 32% of the children that had a healthy diet in school were overweight or obese, and 27.8% of them had central obesity. In multiple regression analyses, central obesity was associated with hours of daily TV watching and with the hours of daily computer use.

**Conclusions** It is important adhering to a healthy lifestyle which emphasizes healthy food choices and habits, regular physical activity, and limiting screen time.

**1421** THE IMPORTANCE OF IR-HOMA AND WtHR IN THE PREDICTION OF THE DEVELOPMENT OF METABOLIC SYNDROME (MS)

doi:10.1136/archdischild-2012-302724.1421

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**Background and Aim** Globesity has made visible the increased risk, yet among younger generations, of cardiovascular diseases, NAFLD, MS, etc. The **Aim** of this study is to stress how two simple indexes (IR-HOMA and WtHR) can be useful at out-patients level to detect the presence of an often still unidentified MS.

**Methods** 857 ow/ob children (405 female, 47.26%), aged 10.54±2.87, were included in this retrospective (5 years) study.

**Results** The standard risk factors of MS (NCEP ATP III modified) in the studied population were represented as follows: Waist Circumference ≥90°c 62.40%; Hypertension 21.52%; Tgllycerides >150°c 12.34%, HDL ≤ 5°c 5.52%, Glycaemia ≥100mg/dl 4.72%, besides, 54.64% showed IR-HOMA >2.5. The overall MS prevalence was 5.49%.

Due to an OR=5.29 (p<0.05) for IR-HOMA vs. MS factors, all patients with an IR-HOMA >2.5 are very likely to have 3 or more elements of MS. If both IR-HOMA and WtHR are abnormal, OR becomes 6.24 (p<0.05).

**Conclusions** In the ow/ob child, IR-HOMA and WtHR are important anticipating factors of MS, even at a very young age, much below the age of 10, presently considered the lowest age to diagnose such complication. This stresses once again how, in any case of obesity, an early intervention is needed, in order to prevent the development of cardiovascular disease in early adult age.