Background: Adenotonsillectomy is one of the most common surgical procedure performed in children in Romania. Child obesity also, seems to follow the same trend of increasing prevalence as worldwide.

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Analysing child obesity risk factors: adenotonsillectomy.

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BACKGROUND

Adenotonsillectomy is one of the most common surgical procedure performed in children in Romania. Child obesity also, seems to follow the same trend of increasing prevalence as worldwide.

OBJECTIVE AND HYPOTHESES

To determine if there is a relationship between adenotonsillectomy and postoperative weight gain in children.

Figure 1. Adenotonsillectomy in a group of overweight and obese children

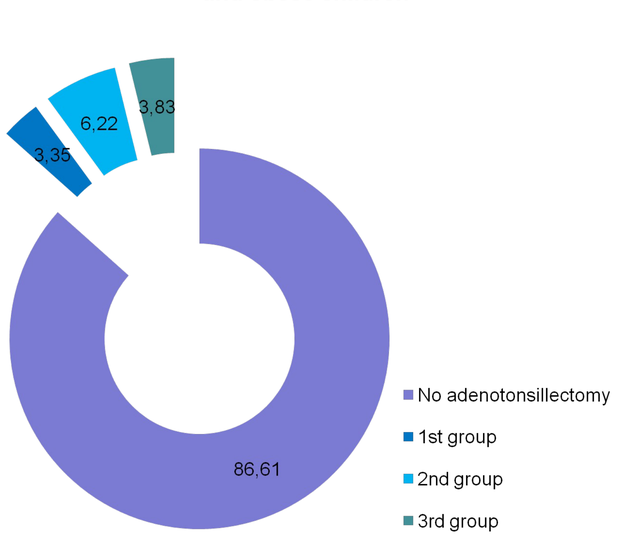
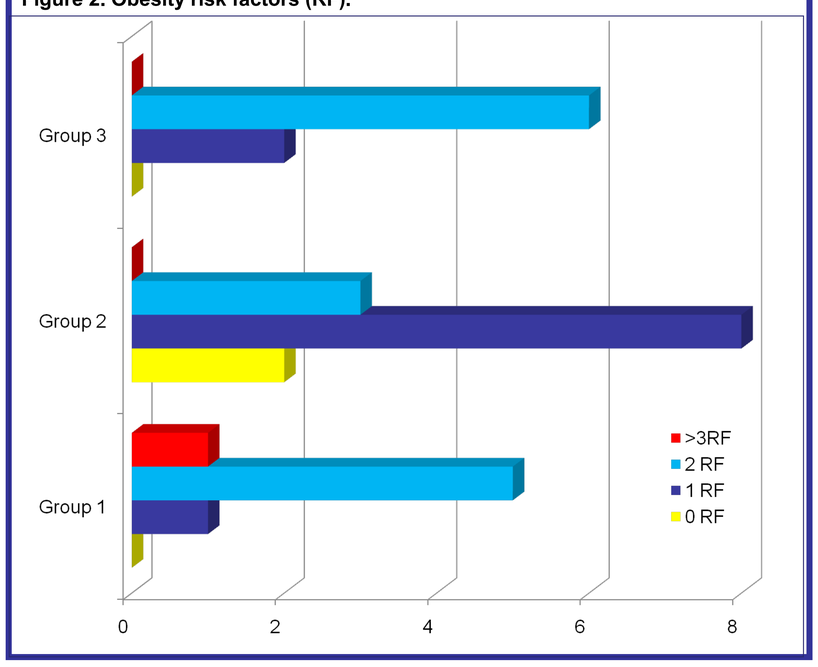


Figure 2. Obesity risk factors (RF).



METHODS

The retrospective four year study included 235 children. After applying the exclusion criteria, data from 209 children with mean age of 11.5± 3.29 years old were analysed. The first evaluation included a complete clinical exam with anthropometric measurements, biochemical tests and a Standard risk factors questionnaire.

RESULTS

Only 13.39% of children had adenotonsillectomy. Three smaller groups were formed: 1st: children that had excess weight before surgery (n=7), 2nd: children that gain weight after surgery and parents identified adenotonsillectomy as the cause of obesity (n=13), and the 3rd group: children that gain weight after surgery and parents could not identify adenotonsillectomy as the cause of obesity (n=8) (Figure 1). So in 10.04% of all cases, the surgical procedure, could be considered a risk factor. Children in the second and the third group had no or maximum one or two other known obesity risk factors (RF) analysed (parents with obesity, diabetes or cardio-vascular diseases, birth weight, type of milk used in the first year of life, age at the introduction of the solid food or the introduction of the cow milk into alimentation) (Figure 2).

When we looked at the children found in the second and third group we couldn’t find any correlation ($p > 0.05$) between IMC or SDS IMC (according to WHO 2007) and the age at the adenotonsillectomy . We also could not establish if there is a gradual increase in body weight from the time of the intervention until the time of the presentation for excess weight problem.

It is important to take into account several limitation of the study. The small number of children that were included. Anamnestic data were recorded based on the recall questionaires filled by parents.

Further research is needed to clarify the interrelation between adenotonsillectomy and weight gain , using systematic evaluation of the child ‘s height and weight, monthly, for the first 6 months, then, at every 3 months for the next 2 years.

CONCLUSIONS

1. Adenotonsillectomy is one of the risk factors for child obesity so, educating the parents and general practitioners about the possibility of weight gain after adenotonsillectomy could be useful in fighting obesity epidemic.
2. For children undergoing surgery, adding simple dietetic habits and exercise guidelines to the existing Post-operative recovery recommendation would be beneficial.
3. The postoperative follow up, including anthropometric measurements, should be done for at least 2 years period.

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Disclosure Statement: I declare that I have no potential conflict of interest

55ESPE 540--P2
Fat metabolism and Obesity
Corina Paul
DOI: 10.3252/pso.eu.55ESPE.2016
Poster presented at: ESPE 2016 PARIS 10-12 SEPTEMBER