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A RESEARCH ON BREATHING DIFFICULTY IN THE OBESE CHILDREN

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ABSTRACT

Subject of this study were a group of children aged from 3 to 13 years old. Some 30 children (as a control group) belonging to the same age and who do not display any obesity signs were also selected. The level of difficulty on breathing to both groups of children was calculated through: questionnaires with parents and examination by a pediatrician. Based on the examination, it was noted that the percentage of the tonsilarhypertrophy andadenoide isalmostthesame inbothgroups, having a higherpredominancein the obesechildren group. In the pediatricexamination, itwas observed that the group ofobesechildrenhas a slight pulmonary obstruction due to the fat whichcompromises the pulmonary and also the abdominal mass which obstacles the diaphragm.

Key words: Breathing Difficulties, Obesity, Adenoid, Hypertrophy etc.

INTRODUCTION

Obesity results due to an increased excess of the fat tissue generally in the body, being beyond the amount that is necessary for its normal functioning [1]. The overweight misbalances the metabolism in general, the physiological function of organs by providing a shock of the general nature, including even the nervous system which is reflected in agony, depression, lack of interest, self-disparagement and up to aggression towards others and themselves [2, 3]. Out of the recent studies carried out, it has resulted that there exists a gene that is directly related toobesity. Thisgenedetermines the production of the proteincalledleptinawhichisnaturallyhigher inobesechildrenand adults [4]. Leptinathrough the encephaliccentersgivesthe messageof hungerorsatiety according to the level ofitsproduction [5]. Itsproduction is stimulated before the mealsanddecreasedafter the meals based on a normal determined balance, while the misbalance of its production is directly reflected in the consumption of food which is increased from 30% to 50% [6, 7]. This hormone isdirectly responsible forthe rapidrecoveryof thelostkilogramsafter the lost of the weight [8]. The effect ofthis hormone in the normalizationof weight has a time frame on bothcases: that ofthe overweightor lost of the weight. In the first case the effect is faster and this is a sound reason for the researchers to directly raise their attention on finding out the factors thatdeterminethe production ofthishormoneorasmany authorscitethe successesinthisdirectionareclosely related tothe effectivefightagainstobesity [9, 10].

METHOD

Inthis, the parents andeducatorswere asked mainly about the children condition/habit at different times. After the survey, there was examination of the children for tonsil hypertrophy and hypertrophy of adenoids. A pediatrician examined the children for any

pulmonary obstruction. The ORL physician, pediatricianandbiologistdecided that all the children were who had the difficulty in breathing. It was also searchedin bothgroupsfor the obstructive sleepapneasyndrome. Thisis acomparativestudyto seethe difference between theobese children comparedwith the group of non obesechildren. Inthe control groupwe triedtoselectchildrenwithnormalweightand notoverweighttonothave any influence on the study.

RESULTS AND DISCUSSION

It resulted thatabout9% of the children belonging to the obesechildren group had difficulty on breathingduring the night. There was also a difference regarding to their group age; the difficulties on breathing were seen more often to children of the age group of 3 - 9 years than those of 10 - 13 years old. The OSASin the group ofobesechildrenis estimated to be 5%. Objectivelycomparing the two groups of children that havedifficulties i.e. those obese and non obese, it was noted that the OSAS group had a remarkable adenotonsilar hypertrophy. On the groups that do not have OSASandhave difficulty on breathing, it wasnoted an adenotonsilar hypertrophy, but on the group ofobesechildren there were 2children who did not have adenotonsilar hypertrophy and meantime displayed remarkable difficulties on breathing, indicatingthatobesityis an important factorin the development of the difficultyonbreathing.

CONCLUSIONS

At the endof thisstudy we found that obesityis animportantfactorwhichdirectlyaffectsthe difficulty on breathing ofchildren aged3- 13years. In thisstudyit was observedthat the number ofobesechildrenwithbreathingdifficultiesis higherthanin the control group. Thisassumesthatthe obesity is the directcauseofthe difficulties onbreathingandis duetothe fat mass that obstacles the upper and lower respiratory system especially during the sleeping of these children. Thisis acomplex studywhere it is worthy to evaluate many externalandinternalfactorsthatcan affectit.

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