Abstract

Recent studies show an alarming increase in the rate of overweight / obesity among the infant - juvenile population. Obesity in childhood is associated with a significant number of complications, such as sleep apnea syndrome, insulin resistance and type 2 diabetes, hypertension, cardiovascular disease and some cancers. It is estimated that the prevalence of sleep apnea in children is 2-3% in the general population, while in obese adolescents, varies between 13% and 66%, according to various studies. It is associated with impairment of neurocognitive function, behavior, cardiovascular system, metabolic disorders and growth. Sleep apnea is a serious public health problem that increases when children and adolescents are overweight or obese. We hypothesize that aerobic endurance exercise can be an effective treatment for obesity and apnea at the same time. The aim of this study was to determine the influence of physical activity in children and adolescents with overweight / obesity in sleep apnea. An observational, descriptive, prospective, longitudinal study will be carried out in children with sleep apnea and obesity. The universe will be made up of 60 children and adolescents aged between 10 and 18 years, attending the endocrinology service for suffering of obesity in the Hospital Clínico San Cecilio of Granada during the period September 2012-September 2013. The sample will consist of children and adolescents that meet these characteristics and to whom their parents/tutors have authorized through the informed consent. Sleep apnea in children will be measured by polysomnography and sleep quality questionnaire. There will also be a nutritional assessment by a food frequency questionnaire and an anthropometric assessment. Among the expected results are the lower overweight and obesity in children through the physical activity program. To reduce apnea and to improve sleep quality.

Keywords