

DOI: <https://doi.org/10.56936/18290825-2023.17.3-84>

EFFECTIVENESS OF COMBINED REHABILITATION THERAPY IN KIDS WITH METABOLIC SYNDROME

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*Received 29.01.2023, accepted for printing 5.06.2023***ABSTRACT**

The work carried out a multivariate study of the mechanisms of metabolic disorders, closely related to an increase in blood pressure in children with arterial hypertension from 10 to 17 years. For this purpose, 60 children with arterial hypertension and metabolic disorders were examined. 20 children made up the control group. Before and after spa treatment, all children underwent a set of clinical and laboratory examinations, which included daily monitoring of blood pressure, biochemical studies of lipid and carbohydrate profiles, insulin, insulin resistance indices HOMO and CARO, leptin, adiponectin.

Besides the individual hypocaloric diet, the rehabilitation included proper physical activity, school of arterial hypertension, not allowing for a child to sit at the computer or watch TV for a long time (or at all), treatment of foci of chronic infection (including pelotherapy and inhalations), sedative aero-phytotherapy, aero-ionotherapy, exercise therapy in either arterial hypertension or obesity group, classical hand massage of the neck and shoulders, electrosleep therapy. Depending on the treatment received the children with arterial hypertension (n=60) were divided into three groups (using the method of simple randomisation).

The use of balneotherapy and electrosleep therapy in complex spa treatment contributes to the normalization of initially disturbed biochemical carbohydrate and lipid metabolic markers, a decrease in high levels of leptin and insulin, and an increase in initially reduced adiponectin. This allows us to conclude that the combined sanatorium-resort rehabilitation of patients is highly effective, which is expressed in a decrease in blood pressure, body weight, indicators of fat and carbohydrate metabolism. Intensive spa treatment has a beneficial effect on changing the criteria for the development of MS in children with obesity and hypertension. Of course, to achieve the optimal effect in the correction of disorders of carbohydrate and lipid metabolism, a long period of therapeutic measures and observation of patients is required, at least 3-6 months.

KEYWORDS: *infants; metabolic syndrome, balneotherapy, electrosleep therapy, rehabilitation.***INTRODUCTION**

In recent years, more and more doctors from various specialties have to deal with such a symptom, as the metabolic syndrome (MS). Today, it includes

the following components: insulin resistance with compensatory hyperinsulinemia, diabetes and other disorders of carbohydrate metabolism, abdominal

CITE THIS ARTICLE AS:

Revenko N.A., Sizova O.A., Marchukova A.Yu., Kaladze N.N., Itskova E.A. (2023). Effectiveness Of Combined Rehabilitation Therapy In Kids With Metabolic Syndrome; The New Armenian Medical Journal, vol.17(3), p 84-90; <https://doi.org/10.56936/18290825-2023.17.3-84>

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