

Metabolic syndrome in children and adolescents who survived after childhood cancer



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Objective

The aim of the work was to study the frequency and severity of various clinical signs associated with metabolic syndrome in a cohort of patients from the Russian Clinical Rehabilitation Center

Design and method:

A group of 100 patients survived acute lymphoblastic leukemia (ALL) patients and 160 paediatric brain tumor survivors (BTS) were formed through an exhaustive clinical examination. In general, more than 50 characteristics were determined in all patients, including biochemical parameters, such as glucose, insulin level, HOMA-IR, lipid profile, BMI, bio-impedance, exercise tolerance, sphygmometry, psychological testing. Statistical analysis was performed using the software package Statistica 8.0 (StatSoft Inc., USA)

Results:

	ALL	BTS
Overweight (bio-impedance)	44.0	40.3
Insulin resistance (HOMA-IR)	21.0	19.9
Dyslipidemia (low high-density lipoprotein)	65.1	45.7
Hypertension	16.0	12.0

Conclusion:

The described algorithm allows identification of a combination of four potential components of the metabolic syndrome in 30% of survivors of childhood cancer. The findings can contribute to the development of an individual rehabilitation program for the prevention and treatment of metabolic syndrome in patients receiving anti-tumor therapy

