Risk factors for atherosclerosis after anticancer treatment in childhood. The assessment of lipid parameters and indicators of susceptibility to atherosclerosis in a group of pediatric patients after anticancer treatment.

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Background and objectives

**Aim**—to evaluate lipid profile in children after anticancer treatment

Materials and methods

**STUDY GROUP**

44 patients; 3.25-16 years (mean 9.38± 3.57; median 9.09)
Solid tumors
>1 year after cessation of treatment

**CONTROL GROUP**

31 healthy children

**EVALUATED PARAMETERS**

- cholesterol SDS, triglycerides SDS,
- LDL-C SDS, HDL-C SDS,
- weight SDS, height SDS,
- BMI SDS.
- Statistical distances between groups
- Indicators of susceptibility to atherosclerosis

**RESULTS**

The risk factors of dyslipidemia (\(\tau\)) in the study and in the control group:
- Comparison of median in the cholesterol SDS, HDL-C SDS, LDL-C SDS, TG SDS
- Calculation of the statistical distance between the study group and the control group,

\[
\tau = \left[ \frac{(E_i-O_i)^2}{E_i} \right] \times 100
\]

- increased risk of lipid disorders – positive sign (+)
- reduced risk of lipid disorders – negative sign (-)

**Conclusions**

1) Lipid disorders are a common complication among children after anticancer treatment.
2) Children after anticancer treatment require monitoring lipid parameters because of much higher risk of complications compared to healthy children.