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Risk factors for obesity in adulthood among survivors of childhood cancer

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Abstract

Objective: The aim of this study was to identify risk factors for obesity in childhood cancer survivors (CCSs).

Methods: The study included 3199 patients of the French Childhood Cancer Survivor Study cohort, with 303 patients with obesity who had returned the self-questionnaire. Analyses were adjusted for social deprivation index and sex.

Results: CCSs were less likely to have obesity (9.5%; 95% CI: 8.5%-10.5%) than expected from the general French population rates (12.5%; $p = 0.0001$). Nevertheless, brain tumor survivors were significantly more likely to develop obesity than the general French population ($p = 0.0001$). Compared with patients who did not receive radiotherapy to the pituitary gland, those who received a dose >5 Gy had an increased risk of obesity: relative risk 1.9 (95% CI: 1.2-3.1), 2.5 (95% CI: 1.7-3.7), and 2.6 (95% CI: 1.6-4.3), respectively, for participants with 6 to 20 Gy, 20 to 40 Gy, and ≥ 40 Gy of radiation. Etoposide administration significantly increased the risk of obesity (relative risk 1.7; 95% CI: 1.1-2.6). High social deprivation index was also a risk factor, just like BMI at diagnosis.

Conclusions: Long-term follow-up of CCSs should include weight follow-up during adulthood.

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