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ENDOCRINE RESPONSE AND PERCEIVED STRESS DURING AN EXPERIMENTAL CHALLENGE TASK IN CHILDHOOD CANCER SURVIVORS

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Introduction: Long-term implications of cancer in childhood are well documented regarding medical conditions. Sequelae on mental health and on response to stress are yet not well understood.

Objectives: This study analyzes the association between stress responses and the experience of cancer in childhood, through biological and subjective measures of stress observed during a psychosocial experimental stress (TSST - Trier Social Stress Test)

Aim: We expected that:

- (1) the clinical group shows an accentuation of both biological and subjective stress responses;
- (2) the response among the childhood cancer subjects would differ according to presence/absence of depressive symptoms; and finally to find a correlation between the disease severity/treatment intensity and the response to stress.

Methods:

53 subjects, 18 to 48 y.o (n= 25 survivors of childhood cancer, n= 28 controls) submitted to the TSST. Subjects provided before and after the TSST repeated evaluations of perceived stress and blood samples.

Results: The clinical group showed a higher plasma cortisol level and a higher amplitude in the response to the TSST. The differences were amplified when depression symptoms were present. The subjective perception of stress and the plasma cortisol were only marginally correlated in both groups. The severity of the oncological disease predicted a higher endocrine response.

Conclusion: The presence of avoidant coping is suggested in cancer survivors, accounting for the lack of correspondence between psychological perception of stress and cortisol response. A better knowledge of the dysregulations of the stress responses is important since they have been associated to psychological vulnerability.