

Psychoneuroendocrinological aspects of anorexia nervosa in adolescents during recovery
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Objective: Anorexia nervosa (AN) is a disorder with psychological and physical symptoms, a high morbidity and mortality rate and a protracted course. Adolescents have the highest risk for developing AN and are studied the least. Studying the recovery process will augment our knowledge of the pathophysiological changes. Weight loss results in changes in leptin, the hypothalamus-pituitary-adrenal (HPA)-axis, the hypothalamus-pituitary-gonadal (HPG)-axis and in several other feedback loops and target organs.

Methods: 60 female adolescents, mean age 16.7 years, diagnosed with AN according to DSM IV were included in a study looking at changes during recovery. The recovery process was defined complete if weight gain resulted in the resumption of a regular menstrual cycle.

Results: Data were collected on weight, body composition and several somatic parameters. Biweekly blood samples and ratings on mood changes and activity levels completed the data collection.

Conclusion: Outcome groups showed significant differences in age, weight gain and activity levels over time, initial leptin levels, body composition, but no differences in duration of illness, length of study, comorbidity or the diagnostic subtype of anorexia nervosa. Weight gain did not differ significantly between the recovered group and a second group that gained weight without a restart of the menstrual cycle, but leptin, HPG hormones and activity levels did differ between these groups.

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