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FOOD PREFERENCES AND TASTE PERCEPTION IN ANOREXIA NERVOSA

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Objective: Restrictive and selective eating behavior with food preferences and aversions is a characteristic symptom in anorexia nervosa (AN). Typically fat-containing food is avoided. Furthermore, very often patients with AN replace food which is rich in calories by fruits and vegetable. The aim of the present study was to evaluate if there is a relationship between food preferences and taste perception in AN.

Methods: 15 female patients with acute AN (ANacute) (BMI 16.5±1.3 kg/m^2, 20.4±4.7 yrs.), 21 remitted female patients with AN (ANrem) (BMI 21.4±2.9 kg/m^2, 24.2±3.2 yrs., remission period 6±2.6 yrs.) and 15 female healthy controls (HC) (BMI 21.6±3.1 kg/m^2, 24.9±2.7 yrs.) were included. Taste perception was evaluated using taste strips (sweet, sour, salty, bitter). Food practice and choice were assessed by self-report. Several blood parameters including hormones and leptin were analyzed. The number of fungiform papillae was quantified using digital photography and image processing.

Results: In ANacute bitter tasting foods were significantly consumed more often when compared with ANrem and HC. Sensoric taste perception for salty and bitter was reduced in ANacute (n.s.). Hedonic taste perception for sour, salty and bitter was increased in ANacute (n.s.). The number of fungiform papillae was significantly decreased in ANacute compared with ANrem and HC. Taste perception for bitter tastes within a range of concentrations correlated with serum estrogen and leptin.

Conclusions: Our results indicate a relationship between food selection and biological factors which can influence taste perception during the underweight stage of ANacute.

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