

Neurotransmitter and hormonal background of hostility in anorexia nervosa.

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Abstract

Marked hostility toward relatives, therapists and friends is very frequently observed in anorexia nervosa (AN) as expression of outward-directed aggressiveness which interferes with the therapeutic programs of the patients. With the purpose to investigate this aspect of the disorder and its biological background, we studied in anorexics some neurotransmitter-hormonal secretions which are known to modulate aggressivity-hostility by measuring plasma concentrations of total (TT) and free testosterone (FT), total estrogens (TE), the TT/E and FT/TE ratios, and the serotonergic function by measuring basal prolactin (PRL) levels and responses to stimulation with the specific serotonin (5-HT)-releasing agent D-fenfluramine (D-Fen). In 13 women with AN, 5 of the restricted (AN-R) and 8 of the bingeing/purging type (AN-BP) in an active phase of the disease, and in 13 healthy controls matched for sex and age, we measured hostility by the SCL-90 scale (subscale items 11, 24, 63, 67, 74, 81). Basal TT, FT, TE, TT/TE, FT/TE, PRL values and PRL responses to D-Fen and to saline administration were measured radioimmunologically in AN patients and controls. Hostility was significantly higher in AN patients than in controls, TT, FT and TE concentrations were significantly lower in AN patients than in controls, TT/TE ratio was significantly higher in AN patients than in controls, and FT/TE ratio was not different in the two groups. In AN patients and controls, hostility correlated positively with TT and FT values. Basal PRL values and responses to D-Fen administration were significantly lower in anorexics than in controls, but they did not correlate with the degree of hostility in either patients or controls. In conclusion, hostility is higher than normal in anorexics, and its severity seems to be linked to the secretion of FT and not to the alterations in the 5-HT function.

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