

A neuropsychological examination of orbitofrontal cortex function in eating disorders

Results:

Objectives: Previous neuroimaging findings implicate an orbitofrontal cortical dysfunction in the pathogenesis of anorexia nervosa (Uher 2003). The orbitofrontal cortex is necessary for practical decision making in humans and the Iowa Gambling task (IGT) became established as an instrument for investigation of decision making and orbitofrontal function (Bechara 2002).

Methods: Using the computerised IGT, we investigated the profile of decision making performance in anorexia nervosa female patients (n=29), male patients with anorexia (n=11) long term recovered participants (n=27), healthy control females (29), healthy males (N=25). Skin conductance response during the task was measured using the PSYLAB equipment.

Results: As expected, the healthy control women made progressively more advantageous choices during the task. Patients with AN failed to show this learning effect and continued making disadvantageous choices throughout the task. Those recovered from AN, showed a normal learning curve and their performance was no worse than that of healthy controls in the IGT.

Conclusions: The impairment of decision making in AN is replication of previous findings (Cavedini 2004). However, decision making in women recovered from AN was not previously reported and may elucidate the role of this cognitive function in the pathogenesis and course of the illness. This pattern of results may suggest that impaired decision making is either a state marker of AN and improvement in decision making is part of the process of recovery or it may be that decision making capacity is a positive prognostic factor which makes it possible to attain full recovery. To distinguish between these two distinct possibilities, longitudinal investigation is warranted.

Published work in peer reviewed journals:

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Area(s) of interest:

Anorexia Nervosa, Bulimia Nervosa, Eating Disorders, Neuropsychology, Treatment, Cognitive Remediation

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