

the literature on HPA functioning as a predictor of psychotherapy response in patients with depression or anxiety disorders, and b) to quantify the strength and direction of this potential relationship.

Methods: We systematically searched the Cochrane Library, and the EMBASE, MEDLINE, and PsycINFO data bases. Records were screened regarding: 1) clinical trial of psychotherapy including a post-treatment measure of symptoms, 2) pre-treatment HPA axis measure, and 3) sample of patients with any depressive or anxiety disorder. We are currently extracting statistical parameters to undertake meta-analysis.

Results: Sixteen articles satisfied our selection criteria (nine on depression, seven on anxiety disorders). In depressed patients, the majority of studies found higher unstimulated and stimulated levels of cortisol to be linked to worse responses to psychotherapy. Findings were mixed with regards to anxiety disorders. The results of the meta-analysis will be presented at the meeting.

Discussion: Findings so far suggest that depressed patients with elevated HPA functioning are less likely to respond to psychotherapy, while findings in terms of anxiety disorders are inconclusive. Meta-analytical confirmation of this finding would imply that HPA measures could be used as indicative markers in the treatment of depression.

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PO7

Does the noradrenergic system influence intrusive memories? An experimental approach with a trauma film paradigm



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Background: Processing of traumatic experiences that may lead to post-traumatic stress disorder (PTSD) depends substantially on noradrenergic activity. Intrusive memories of the traumatic experience are core features of PTSD but little is known about the neurobiology of intrusive memories. The aim of this study was to determine whether the activity of the noradrenergic system during an emotional negative event influences intrusive memories.

Methods: We conducted an experimental, double-blind, placebo-controlled study with 118 healthy participants. Prior to watching an established stress film paradigm, participants received a single dose of either 10 mg yohimbine, that stimulates noradrenergic activity, or 0.15 mg clonidine, that inhibits noradrenergic activity, or placebo. The number of consecutive intrusions of the film, the vividness and the degree of distress were measured during the following four days. Salivary cortisol and alpha-amylase were collected at seven time points during the study.

Results: We found a significant time by treatment interaction for the number of intrusions and the vividness of intrusions indicating a different time course of intrusions depending on treatment. Post-hoc tests revealed that higher noradrenergic activity in the yohimbine group was associated with more intrusive memories and higher vividness of the intrusions compared to the clonidine and placebo group.

Discussion: Our findings indicate that noradrenergic activity during an emotional negative event impacts on the number of

consecutive intrusive memories and their vividness. Therefore, peritraumatic interventions within the noradrenergic system might be promising to prevent intrusive memories in PTSD.

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PO8

Individual susceptibility to stress-related psychopathology after cardiac surgery



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Background: Cardiac surgery patients are at risk for stress-related psychopathology after hospital stay. We found that post-traumatic stress disorder (PTSD) and depression occur in 10.5% and 13.1% respectively of cases, 1.5–4 years after surgery. This possibly counteracts beneficial effects of the surgical intervention and postoperative treatment. The aim of this study was to identify patient related determinants of psychopathology after cardiac surgery.

Methods: This is a multi-centre follow up study of the Dexamethasone for Cardiac Surgery (DECS) trial, in which patients received a single, intravenous dose of dexamethasone (1 mg/kg) in a randomised, double-blind, placebo-controlled way. Questionnaires were mailed to 1244 participants 1.5 to 4 years after cardiac surgery to assess PTSD, depression, childhood trauma, life events, trait anxiety, pre-existing psychopathology, and substance use. Salivettes were sent to obtain saliva and genotype hypothalamic-pituitary-adrenal-axis (HPA-axis) related haplotypes. Data was available for 996 (80.1%) participants. Backward linear regression was performed with all factors mentioned above, including age and gender.

Results: Trait anxiety, life events, childhood trauma, and mineralocorticoid (MR) haplotype 2 were retained in the model with an adjusted R^2 of 0.54 ($p < 0.01$) for PTSD. With regard to depression, trait anxiety, life events, MR haplotype 2, age, and female gender contributed significantly to the model (adjusted $R^2 = 0.50$; $p < 0.01$).

Conclusions: Predisposition for psychopathology after cardiac surgery mainly depends on trait anxiety and life events, but genetic variation of the MR, gender, and age are important as well.

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