

P-814 - LONGITUDINAL FMRI ASSESMENT OF COGNITIVE AND BEHAVIORAL THERAPY FOR OBSESSIVE COMPULSIVE DISORDER: ARE THERE NEUROBIOLOGICAL MARKERS OF RESPONSE TO TREATMENT?

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Introduction: Cognitive and Behavioral Therapy (CBT) is recognized as a valid tool to improve Obsessive Compulsive Disorder (OCD) symptoms. The orbitofrontal cortex (OFC)-striatal circuit appears to play an important role in the pathophysiology of OCD. Neuroimaging studies suggest that CBT might change its abnormal activity in OCD patients.

Objectives: The aim of this study is to use longitudinal functional Magnetic Resonance Imaging (fMRI) to assess the neural correlates of clinical improvement in OCD patients undergoing CBT.

Methods: Thirty-five OCD patients with checking compulsions undergoing 15 individual weekly CBT sessions were assessed on symptom severity with the Y-BOCS [1] at four stages of the therapies: before, during, at the end of therapy and six months later. On each assessment, patients also performed a symptom-provocation task in fMRI during which they reported their anxiety level upon watching neutral photographs, generic (validated in a population of OCD checkers) vs individualized (patient's photographs of personal objects) checking-provoking photographs.

Results and conclusions: Clinically, CBT resulted in a significant improvement (Y-BOCS scores: 24.8; 18,3; 13,7; 13.9). Behaviorally, the symptom-provocation task elicited anxiety that decreased through therapy ($p < 0.05$), even more so for individualized vs generic pictures (interaction $p < 0.05$). At the brain level, individualized pictures elicited activation in a distributed network specifically in right and left OFC, where neural response decreased during and after CBT, underlining the interest of tailoring individualized symptom-provoking items on the path to neuromarkers of response to psychotherapy.

[1] Goodman WK et al. (1989). Arch Gen Psy 46(11), 1006-1011.