Title	Facial emotion recognition after subcortical cerebrovascular diseases
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J. NUYEN, N. VAN DER WEE, & M. SITSKOORN. Verbal Memory in First-Episode Schizophrenia and Obsessive-Compulsive Disorder.
Brain regions held responsible for cognitive dysfunction in schizophrenia and obsessive-compulsive disorder (OCD) show sizable overlap: frontal, thalamic, and basal ganglia regions are most probably involved in the pathology of both diseases. On a more specific level there are differences. For example, evidence associates orbitofrontal cortex dysfunction with OCD, whereas dorsolateral prefrontal cortex pathology is related to schizophrenia. The observed pathology suggests an impaired verbal learning and memory profile often seen in acquired neurologic disorders involving frontosubcortical, especially striatal pathology. Indeed, several studies demonstrated a frontostriatal dysfunction memory profile in schizophrenic patients. The evidence for such a profile in OCD is emerging, although not consistent. The present study investigated whether verbal memory performances of first-episode (FE) schizophrenic and OCD patients were consistent with a pattern of deficits expected with frontostriatal dysfunction. Therefore performance of FE patients ($n = 35$), OCD patients ($n = 20$), and health controls ($n = 35$) on the CVLT was examined. Matching criteria included age, sex, handedness, premorbid IQ, and parental educational level. FE patients demonstrated impaired direct and delayed recall ($ps < .001$), as well as impaired recognition ($p < .05$) when compared to controls. OCD patients only had difficulty with the initial acquisition of the lists ($p < .05$). They also performed better than FE patients on direct and delayed recall ($ps < .01$). Additional difference-scores analyses support the conclusion that both patient groups did not demonstrate a distinct frontosubcortical profile. Results are discussed with reference to underlying pathology.
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M. SITSKOORN, M. SALDEN, & R. KAHN. Latent Inhibition in First-Episode Schizophrenic Patients and Matched Controls.
Background: Latent inhibition (LI) is considered to be an index of a subject's ability to learn to ignore irrelevant stimuli. It refers to the retarded acquisition of new associations with a stimulus that has been experienced without reinforcement. LI is highly sensitive to dopaminergic manipulations and to lesions of hippocampal areas and adjacent structures. *Method:* A new visual latent inhibition paradigm was administered to 13 first-episode schizophrenic (F.E.) patients and 21 healthy controls. Patients and controls were matched on age, gender, handedness, IQ, and parental education. Half of both patients and controls were preexposed (PE) to a conditioned stimulus (CS), the other halves were not preexposed (NPE). The CS was subsequently paired with an unconditioned stimulus (UCS). LI is reflected in a retardation of learning the CS-UCS association in the PE group as compared to the NPE group. *Results:* Analyses show that PE controls took significantly more trials to learn the CS–UCS association than NPE controls ($p < .05$). PE patients did not differ significantly from NPE patients. Furthermore, patients needed the same amount of trials as controls in both the NPE and PE condition. *Conclusion:* Controls showed a clear LI effect whereas patients did not. This might suggest that FE patients' ability to ignore irrelevant stimuli is impaired. This conclusion is however preliminary and further investigation is required. An alternative explanation in terms of a generalized slowed acquisition seems not plausible. The potential of LI to study cognitive, neurochemical, and neuroanatomical dysfunction in schizophrenia will be discussed.
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F. J. CAROD-ARTAL, C. VÁZQUEZ, J.A. EGIDO, J.L. GONZÁLEZ-GUTIÉREZ, & E. VARELA DE SEIJAS. Poststroke Depression in a Stroke Unit: Predictive Factors at 1 Year Follow-Up.
Background: Poststroke depression (PSD) is a common disorder that impairs the rehabilitation and functional recovery of stroke patients. This study was designed to study predictive factors of PSD 1 year after stroke. *Design/Methods:* We followed up for 1 year a cohort of 118 patients consecutively admitted to our Stroke Unit at San Carlos Hospital, in Madrid, Spain. Final series at one year follow-up consisted of 90 survivors (41 women and 49 men; *M* age 68 years). Socioeconomic variables, stroke subtype and location, laterality and neurological impairment were studied. Depression was estimated by the Hamilton Rating Scale for Depression (HRSD) and Psychosocial Dimension of SIP. We developed an ANOVA model for statistical analysis. *Results:* Mean HRSD score 12 months after stroke was 13.1 and mean Psychosocial dimension score 27.5. A third of patients showed depressive symptoms at discharge; 67% scored in the range of depression at 1 year follow-up, with 37.7% in the range of major depression. PSD was significantly higher in women (78% *vs.* 57%, $p = .014$), as was the severity. Neither stroke subtype, laterality, marital status, nor educational level was correlated with PSD. Two social variables, status as a housewife and inability to work, were significantly correlated with PSD ($p = .0356$). Patients with severe disability scored significantly worse in HRSD ($p = .005$). *Conclusions:* PSD was highly prevalent 1 year after stroke and was chiefly associated with female sex, status as a housewife, handicap that affected ability to work, and diminished social activity.
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C. CHEUNG, T.M.C. LEE, & L. LI. Facial Emotion Recognition After Subcortical Cerebrovascular Diseases.
The present-study is intended to study the pathological manifestation of subcortical cerebrovascular disease in the aspect of facial emotion recognition. Subcortical structures were believed to be responsible for the recognition of facial expressions. Universal facial expressions of happy, disgust, fear, surprise, sad, and angry were validated and used as the prototype expressions. The study was conducted on 2 patient groups consisting of 19 patients in each group with damages in the left and the right hemisphere due to subcortical cerebrovascular disease. They were asked to recognize the interpolated emotional expressions intended to explore whether they can recognize the emotions and the small changes between different basic emotions. Significant group differences were found between patient groups and control group in accurately responding to the emotion. The major findings presented in this study are consistent with previous studies which showed the impairment of recognition of facial emotions is related to lesion to the subcortical areas. The study provided preliminary evidence to the role of the subcortical region in emotion recognition, including the thalamus and the internal capsule, which were seldom studied in previous researches. Furthermore, the results showed that the right hemisphere has the advantage of emotion recognition over the left hemisphere.
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A. VISSER-KEIZER, M. GERRITSEN, I. BERG, & B. MEYBOOM-DE JONG. Awareness of Emotional Change After Stroke.
In neuropsychological literature, there have been many reports on changes in emotional behavior after left and right sided stroke. However, little research has focused on factors related to awareness of emotional change after stroke. Previous studies showed that the awareness of the physiological components of emotions can be disrupted by right hemisphere damage. Impaired awareness of deficits is also found to be a secondary effect of cognitive impairments. In this study, a group of 113 first-ever unilateral ischemic stroke patients (55 subjects with right-sided damage and 58 subjects with left-sided damage) were asked to estimate the amount of their emotional change. Emotional change was measured using 21 items which were chosen on the basis of clinical relevance. Of the right and left sided stroke patients, respectively 36 (65%) and 38 (66%) had a relative, who also rated the amount of emotional change in the patient. Overall, partners reported greater changes in emotion on all items than the patients themselves. Disagreement between patients and partners was significantly related to side of damage. Left sided stroke patients disagreed on the amount of their emotional change on 24% of the items, while right sided patients significantly disagreed on 62% of these items. Disagreement between patient and relative was significantly associated with the severity of hemianopia, apraxia, neglect and disturbances in the orientation of place. How-