

changes could be the result of an ongoing disease process. In addition, other potential causal factors such as traumatic experiences must be taken into account.

S-26-04

Neuronal correlates of Cluster B personality disorders

B. Völlm, P. Richardson, L. Zhao, S. McKie, J. Stirling, R. Elliott, M. Dolan, I. Anderson, R. Elliott, S. Williams, B. Deakin.
University of Manchester, Neur, Manchester, United Kingdom

Objective: To investigate structural abnormalities and brain activation patterns to cognitive tasks of behavioural inhibition, reward and loss in patients with borderline personality disorders using functional and structural brain imaging.

Methods: 7 medication-free male patients with a DSM IV diagnosis of BPD and 8 healthy controls (matched for age and IQ) were included. Scanning was performed on a 1.5 T machine (40 axial slices, 3.5mm spacing, TR 5 sec.). Volunteers performed a Go/NoGo, reward and loss task. fMRI data were analysed using SPM2. Structural images were analysed using voxel based morphometry. A correlation analysis between impulsivity scores grey matter volumes was performed.

Results: Structural brain imaging results showed reduced grey matter volumes in prefrontal and temporal regions in the BPD group. Impulsivity scores correlated negatively with grey matter volumes in prefrontal and temporal areas in both, the patient and the control group. Brain activation to the impulse inhibition, reward and loss tasks should significantly different patterns in the BPD compared to the control group.

Conclusion: Our results confirm previously described prefrontal and temporal deficits in BPD. Specifically, we observed structural deficits in the orbitofrontal cortex an area related to impulse control and reward processing. The OFC might be important in the etiopathology of disorders related to impulse control and altered reinforcement processing. Brain activations to the Go/NoGo task showed enhanced activations in the patient group. This functional 'hyperfrontality' might be due to a compensatory mechanism to achieve normal performance despite structural brain deficits.

S-26-05

The neuropsychology and functional neuroimaging of personality traits and dimensions

C. van Heeringen, K. Bernagie, M. Vervae, I. Goethals, K. Audenaert. *University Hospital Gent, Dept, Gent, Belgium*

Objective: This presentation will focus on recent neuropsychological and functional neuroimaging findings in association with personality traits in patients showing impulsive behaviour, suicidal behaviour, and aggressive behaviour, and in healthy controls

Methods: 1. Neuropsychological tests: WCST, COWAT, ToL, TMT, STROOP 2. Functional neuroimaging using SPECT: rCBF and 5-HT_{2a} receptor binding 3. Personality traits: TCI

Results: The studies in different patient samples tend to show a number of clusters of characteristics, associated with particular psychopathological phenomena, e.g. - in suicidal patients: decreased 5HT_{2a} binding in dorsolateral prefrontal cortex, correlating with word fluency and harm avoidance scores - in impulsive patients: reduced orbitofrontal rCBF, negatively

correlating with self-directedness scores - in suicidal and aggressive individuals: negative correlation between impulsivity and rCBF in right lateral temporal regions

Conclusion: The study of personality using a combined neuropsychology - neuroimaging - trait approach in divergent patient samples may help to elucidate mechanisms underlying psychopathological characteristics, and thus guide the development of treatment and prevention strategies.

Monday, April 4, 2005

S-42. Symposium: Alexithymia - interaction with psychiatric and psychosomatic disorders

Chairperson(s): Hans Jürgen Grabe (Stralsund, Germany), Matti Joukamaa (Tampere, Finland)
16.15 - 17.45, Holiday Inn - Room 8

S-42-01

Alexithymia across the life span

M. Joukamaa. *Tampere School of Public Health, Tampere, Finland*

Objective: Several population studies on alexithymia with representative samples have been published in recent years. We studied the association of alexithymia and socio demographic factors by reviewing these studies.

Methods: A review of five published articles (three of them with working age people and two with elderly people) and of two unpublished manuscripts (one with a large age scale 30-90 years old people, one with 15-16 years aged young people).

Results: About one tenth of working age people is alexithymic, men more commonly than women. This holds also on teen age people. Alexithymia is associated with living alone, low education and unemployment. Among elderly people the prevalence of alexithymia is almost three times as high and there do not exist any gender difference. Among elderly also the association with other socio demographic factors seems to be weaker.

Conclusion: Alexithymia is associated with many socio demographic factors. This should be kept in mind when assessing the associations of different somatic diseases and mental disorders with alexithymia.

S-42-02

The role of alexithymia in the natural history of the functional gastrointestinal disorders

P. Porcelli. *IRCCS De Bellis Hospital Psychosomatic Unit, Castellana Grotte, Italy*

Objective: To investigate the role of alexithymia in the natural history of Functional Gastrointestinal Disorders (FGID).

Methods: Systematic review of literature.

Results: Pre-clinical stage of symptom perception: alexithymia was higher in FGID patients than patients with organic GI disease (IBD) and healthy subjects, even after controlling for moderator variables. Diagnostic stage of health care referral: alexithymia was higher in FGID patients with psychopathology referred to a GI setting than psychiatric outpatients with GI syndromes referred to a mental health care setting, even after controlling for psychiatric-

GI comorbidity. Clinical stage of treatment response: alexithymia was a significant predictor of non-response to treatment in FGID patients, over and above high psychological symptoms of anxiety and depression. Outcome stage of symptom maintenance: alexithymia was a significant predictor of persistence of functional GI symptoms in cholecystectomized patients with gallstone disease one year after surgery, over and above psychological distress.

Conclusion: Speculative hypotheses of explanation on the role of alexithymia across the different stages of the natural history of FGID may concern the cognitive deficit in emotional processing and the neurobiological correlates of both FGID and alexithymia related to the dysregulation of the prefrontal and anterior regions of the brain.

S-42-03

Alexithymia in obsessive compulsive disorder – Results from a family study

H. J. Grabe, S. Ettelt, S. Ruhrmann, M. Wagner. *University of Greifswald Psychiatry, Stralsund, Germany*

Objective: Previous studies have suggested an association between alexithymia and obsessive-compulsive disorder (OCD). However, it is unclear to which extent alexithymic traits in OCD patients reflect familial deficits in cognitively processing and communicating feelings that are also present in their first degree relatives. This paper investigates the hypotheses of an elevated level of alexithymia in subjects with OCD and their first degree relatives compared to controls and their first degree relatives.

Methods: 82 cases with OCD and 169 first degree relatives were compared to 76 controls and 144 first degree relatives from a German family study on OCD (GENOS) completed the Toronto-Alexithymia-Scale 20 (TAS-20). Direct interviews or family informant information were carried out with the German version of the Schedule for Affective Disorders and Schizophrenia – Lifetime version for anxiety disorders (DSM-IV).

Results: OCD was associated with significantly higher scores of alexithymia. However, first degree relatives of OCD cases and of controls had comparable TAS-20 scores. In linear regression analyses, the TAS-20 total score showed significant intrafamilial associations within the families of control subjects but not within families of OCD cases.

Conclusion: OCD is a severe mental disorder that is associated independently from other current comorbid axis-I disorders with deficits in identifying and expressing feelings. These deficits seem to be restricted to the affected subjects and are not present in their first degree relatives. However, in general, alexithymia represents a familial trait.

S-42-04

J. Salminen, S. Saarijärvi, T. Toikka, J. Kauhanen. *National Public Health Instit. Dept. of Health/Functional C., Turku, Finland*

Objective: To test the temporal stability of alexithymia in the general population when psychological distress was controlled for.

Methods: Methods: The 20-item Toronto Alexithymia Scale (TAS-20) and the 12-item version of the General Health Questionnaire (GHQ-12) was mailed to 1285 subjects representing the general population and who had responded to our similar query five years earlier (1996).

Results: A total of 901 subjects (M=387; F=514) responded (70%). The baseline mean score of the TAS-20 was 48.4 for men and 44.0 for women, and at the follow-up 47.5 and 42.9, respectively ($r=0.69$ for men, and 0.66 for women). The mean score for the GHQ-12 at the baseline was 1.9 for men and 2.1 for women, and 2.0 and 2.2 at the follow-up, respectively ($r=0.36$ for men, and 0.32 for women). The 5-year correlation between the change of the TAS-scores and the change of the GHQ-scores was 0.24.

Conclusion: There is a modest correlation between change in alexithymia and psychological distress in the general population. However, the correlation of alexithymia scores over five years is much stronger than the correlation of psychological distress scores. This supports idea that alexithymia is a relatively stable personality construct rather than a state dependent phenomenon.

Monday, April 4, 2005

S-40. Symposium: Pathological cruelty against animals and people: Contributions from Russia and the USA

Chairperson(s): Aleksandr Bukhanovsky (Rostov-on-Don, Russia), Alan Felthouse (USA)

16.15 - 17.45, Holiday Inn - Room 3

S-40-01

Psychotherapy of cruel sadism: A family systemic approach

N. M. Turchenko. *Rostov State Medical Universit, Rostov on Don, Russia*

Objective: To study and develop the role and place of psychotherapy in cruel sadism integrated treatment within the systemic integrated approach concept.

Methods: Studied was the structure of the family system, peculiarities of its functioning and development, as well as communication patterns and upbringing peculiarities in 57 serial sexual aggressors, with an application of a family systemic integrative concept.

Results: Practically all the 57 cruel sadists have shown various dysfunctional communication patterns, structural violations associated with vague or rigid boundaries of both the family system and its subsystems. Each family revealed discrepancy between the development of matrimonial and parental subsystems and, on the other hand, the family system age and its actual needs. 11 out of the 57 studied families ended in a divorce when the children were 3 to 14 years old. In 7 families there was the father's or mother's death, including 1 murder of the father and 2 cases of the mother's suicide. Emotional relations in 14 families were characterized as lacking emotional devotion, in 14 cases there was emotional attachment to the mother, and in 4 cases to the father (a symbiont dependence type). In most families there was communication with 'double bind' elements. In 50% of the families the relations between the parents were characterized as a dominant mother – peripheral weak-willed father. One-fifth of the examined persons long lived beyond the family: in children's homes, boarding schools. However even those who lived in their families experienced emotional disallowance, cruel treatment. The above-said families were characterized by an inclusive anomalous impact: in 84.6% of cases cruelty was combined with emotional disallowance, in 73.1% it