

**Conclusions** High cortisol levels may exert deleterious effects on cognition and exacerbate AD pathology. Further studies are needed to explore glucocorticoid-based interventions in the management of cognitive disorders.

**Disclosure of interest** The authors have not supplied their declaration of competing interest.

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#### EV0714

### Plastic surgery treatment of post-bariatric patients cannot remain “brainless”

C. Pavan<sup>1,\*</sup>, V. Vindigni<sup>2</sup>, A. Vallesi<sup>2</sup>

<sup>1</sup> University of Padova, Department of Medicine, Padova, Italy

<sup>2</sup> University of Padova, Department of Neurosciences, Padova, Italy

\* Corresponding author.

**Introduction** The aim of this study was to investigate the presence of executive difficulties due to a lack of the management of cognitive conflict, inhibition, and cognitive flexibility in this group of patients. If executive difficulties are at the basis of uncontrolled alimentary behavior, these will be present also after a dramatic weight loss and could lead to a poor compliance of the patient after plastic surgery procedures.

**Materials and methods** We enrolled 21 consecutive post-bariatric patients. This clinical population was compared with a control group ( $n=21$ ) from the general population sharing the same clinical and demographic features. Psychiatric evaluation was performed. Executive difficulties were investigated through electroencephalography using the stroop task, sustained attention to response task, and task switching tests.

**Results** The patient group reported more frequently psychiatric disorders than control group. Patients had higher prevalence of lifetime major depression (58.3% vs. 14.3%), of lifetime panic disorder (36.1% vs. 4.8%) and generalized anxiety disorder (16.75% vs. 0%). Finally, patients were more frequently affected by body dysmorphic disorder ( $\chi^2 = 8.867$ ,  $P = .003$ ). Electroencephalography confirmed the presence of executive difficulties sustained by a lack of the control of cognitive conflict and cognitive flexibility, and a difficulty of the inhibitory control in the patient group.

**Conclusion** Electroencephalography confirmed for the first time the high prevalence of psychological/psychiatric problems in post-bariatric patients. Patients showing high values of executive difficulties will need a psychological/psychiatric support to sustain a positive outcome after post-bariatric plastic surgery.

**Disclosure of interest** The authors have not supplied their declaration of competing interest.

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#### EV0715

### Cognitive functions recovery after traumatic brain injury of mild severity in adolescents

S. Pervichko

Lomonosov Moscow State University, psychology, Moscow, Russia

**Introduction** The effect of the traumatic brain injury of mild severity (mTBI) on the cognitive functions influences on the educational activities of adolescents in school and the quality of life in general.

**Objectives** To study the violations and to track the dynamics of recovery higher mental functions (HMF), after mTBI in adolescents with neuropsychological syndrome in the range of up to one year.

**Materials and methods** The study is based on the original set of techniques designed by A.R. Luria. We focused on assessing the

status of various components of the HMF. We also studied of the mental activity in its regulatory and dynamic aspects. Thirty-one patients with mTBI (mean age was  $11.5 \pm 1.3$ ) and 20 healthy subjects (mean age was  $12 \pm 1.5$ ) took part in the study.

**Results** Analysis of the results showed that violations of HMF in the acute period were represented by three types of syndromes. The leading place in each syndrome is occupied by deficiency symptoms of non-specific brain structures. Research of dynamics of recovery HMF demonstrated the symptoms related to deficiency of parietal-temporal-occipital area are reducing for the first month, as well as the symptoms of the anterior brain. After six months we observed the decrease all symptoms from cortical structures, but the symptoms persist in the form of fatigue, reduction the rate of mental activity, difficulty in concentration.

**Conclusions** Application of neuropsychological approach (Luria school) to the diagnosis and recovery of deficit cognitive function allows to describe the symptoms and to identify their hierarchy in the structure of violations.

**Disclosure of interest** The author has not supplied his declaration of competing interest.

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#### EV0716

### Phenocopy frontotemporal dementia: A case series from a national memory clinic and a review of the literature

C. Power<sup>1,\*</sup>, O. Hannigan<sup>2</sup>, M. Gibb<sup>2</sup>, I. Bruce<sup>2</sup>, M. McCarthy<sup>2</sup>, R. Coen<sup>2</sup>, D. Robinson<sup>2</sup>, B.A. Lawlor<sup>2</sup>

<sup>1</sup> St James's Hospital, Memory Clinic – Mercer's Institute for Research in Ageing, Dublin, Ireland

<sup>2</sup> Memory Clinic, Mercer's Institute for Research in Ageing, Dublin, Ireland

\* Corresponding author.

**Introduction** The existence of a frontotemporal dementia phenocopy (phFTD) syndrome remains controversial. Opinions differ on whether the phenocopy presentation represents the neuropsychological manifestation of a mid-life decompensation in vulnerable pre-morbid personalities or an indolent prodrome of behavioral-variant FTN (bvFTD). Literature on this topic is sparse and clinicians and patients have little guidance around prognosis and management.

**Objectives** To describe the demographic, neuropsychological and biomarker profiles of a case series of phFTD patients, attending the memory clinic and review relevant literature.

**Methods** Retrospective review of all cases diagnosed with phFTD. **Results** Eleven cases were identified (male = 9, female = 2). Mean age 55.8 years. Subjective complaints comprised memory and language difficulties. Collateral reports described apathy, aggression, impulsivity, disinhibition, hyperorality. Function was relatively preserved though motivation or supervision for higher-level tasks was sometimes required. All had non-neurodegenerative MRI and PET scans. Neuropsychological test (NPT) findings predominantly showed executive dysfunction and fluency impairment. A total of 3/11 had non-amnesic memory impairment. Follow-up imaging and NPT were invariably unchanged; 1/11 had a pre-morbid psychiatric diagnosis; 5/11 had unusual personality traits pre-morbidly. Major psychosocial stressors were documented in 7/11. Management consisted of psychosocial interventions to support function and interpersonal relationships.

**Conclusions** The literature describes the phFTD syndrome as predominantly affecting males though we include 2 females who meet the criteria. In keeping with our findings, personality traits and psychosocial stressors may be more common in phFTD than bvFTD. More severe symptoms, memory impairment at presentation and C9ORF72 gene mutation may predict eventual progression. Those who do not progress have minimal long-term functional impairment though behavioral symptoms persist.

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#### EV0717

### The biology of cognitive behavior therapy

H. Ramy

*Egyptian Association of Cognitive Behavior Therapy, Psychotherapy, Cairo, Egypt*

Cognitive behavior therapy outcomes and the mechanism of change that are related to its effects have traditionally been investigated on the psychological abilities, personalities or social functioning. Many psychiatrists have also held the unfortunate dichotomized position that psychotherapy is a treatment for “psychologically based” disorders, while medication is for “biologically based” disorders. During the past several decades, it has become clear that all mental processes drive from mechanisms of the brain. This means that any change in our psychologically processes is reflected by changes in the functions or structures of the brain. Straightforward reductionist stances, however, are unfounded because there is clear evidence that our subjective experiences affect the brain. Plastic changes in the brain have been difficult to study in humans, but there has been more than one successful trial. Changes in the brain in relation to experience have been detected at the cellular and molecular level using different experimental approaches. The advent of functional neuro-imaging, including photon emission CT (SPECT), positron emission topography, and functional MRI, has made it possible to study changes at the brain systems level (by measuring changes in the brain blood flow or metabolism) associated with cognitive behavior changes. The presentation will shed light on the biological basis of CBT reviewing the evidence from a historical perspective. In addition the imaging studies will be reviewed with emphasis on future perspectives in the use of CBT in the treatment of various psychiatric disorders and the importance of clarifying the biological changes associated with improvement.

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#### EV0718

### Comparative study of the frontal EGG activity after superficial neuro-stimulation application, mindfulness and other attentional techniques

P. Rico<sup>1,\*</sup>, P. Aranguren<sup>2</sup>

<sup>1</sup> *Professor of Psychiatrist European University – Madrid, Psychiatry and mental health Getafe’s Hospital, Madrid, Spain*

<sup>2</sup> *Universidad Complutense de Madrid, Clinical, Madrid, Spain*

\* *Corresponding author.*

**Introduction** Changes in the electrical cerebral activity, especially in frontotemporal regions, have been described after using the Superficial Neurostimulation Application (SNSA) in upper and lower limbs. The use of this technique is associated with emotional equilibrium and predisposition for a positive mood. Its application clinically improves hostility and anxiety symptoms.

**Aims** To compare the electrical changes observed after the use of SNSA with other techniques of mental concentration: Mindfulness (mental attention without judgment) and a technique based on the emission of a sound.

**Materials and methods** SNSA topology system: uses electricity through superficial electrodes placed on feet and hands and an

electrode over the 7th cervical vertebra; Digital encephalogram; Faraday cage.

**Results** Mindfulness and SNSA techniques show similarities regarding the alpha rhythm’s frequency in frontal regions (Figs. 1 and 2) compared to a different mental concentration technique (Fig. 3).

**Conclusion** Further analysis would be required.

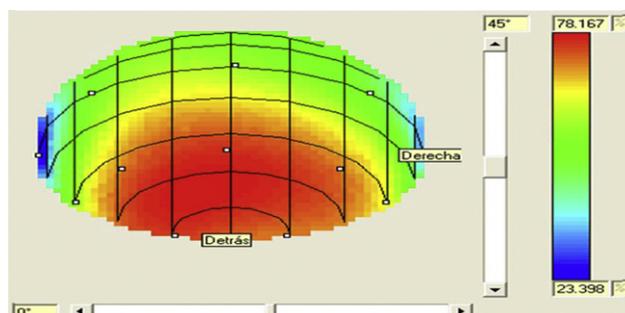


Fig. 1 Alpha rhythm post-training 1.

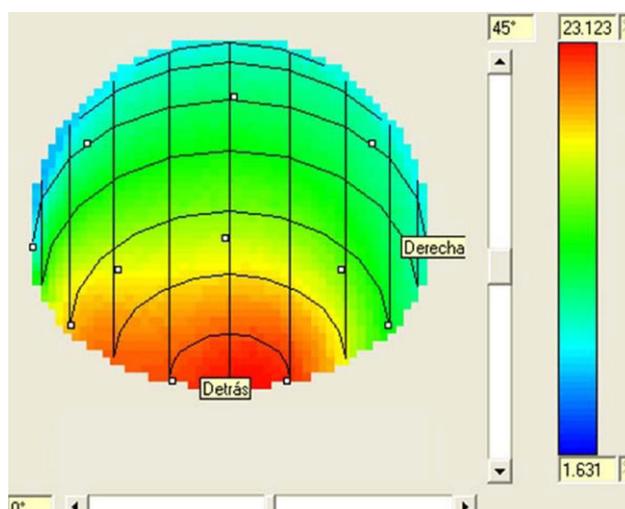


Fig. 2 Post - SNSA.

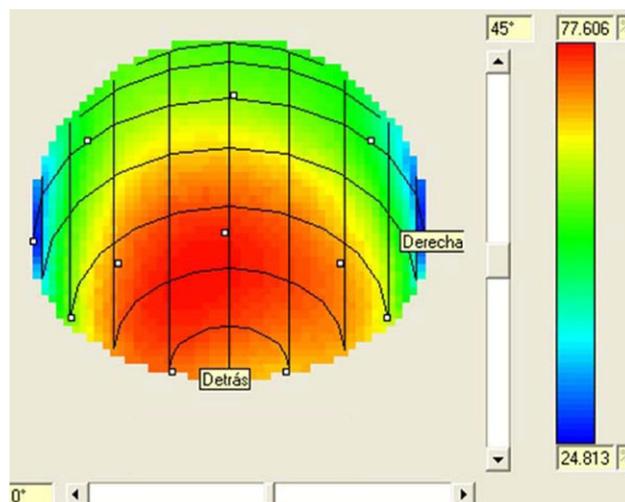


Fig. 3 Alpha rhythm post-training 2.