EPV1224

Sharing is caring: a review on Oxytocin role in human behaviour and clinical implications

F. Ramalheira[1]* and M. Conde Moreno[2]

[1]Centro hospitalar Psiquiátrico de Lisboa, Serviço De Electroconvulsoterapia, Lisboa, Portugal and [2]Centro hospitalar Psiquiátrico de Lisboa, Hospital De Dia, Lisboa, Portugal
*Corresponding author.
doi: 10.1192/j.eurpsy.2022.1898

Introduction: Oxytocin, also known as the love molecule, was discovered in 1906 because of its effects on uterine contractions. It exists in all mammals and is partly responsible for delivery. Nonetheless, it seems that oxytoxin also takes part in something as important to nursing as the physical changes in childbirth – the behavioural predisposition to form human bonds and to care for others.
Objectives: Present a review on Oxytocin and its functions in human behaviour and possible clinical implications
Methods: Pubmed and Google Scholar search using the keywords "oxytocin", "behaviour", "oxytocin in humans" and "psychiatry".
Results: Besides acting as a peripheral hormone following posterior hypophisis secretion, oxytocin can be diffused through several brain areas, acting as a neuropeptide in neurochemical circuits that promote sexual behaviour, maternal and caring behaviour towards newborns, and other subtle social processes like vinculation, social memories formation, aggressiveness towards strangers and anxiety reduction. These evolutionary advantages constitute the roots for feelings of love and social phenomena like solidarity and affection. Oxytocin is increased in response to sex hormones, during pregnancy and social interactions, especially mother-child contact; additionally, is associated with endorphin release and feelings of well-being. Several studies associate the oxytocinergic system to multiple clinical implications, such as Anxiety Disorders, PTSD, Depression, Autism, Borderline and Anti-social Personality Disorder.
Conclusions: Oxytocin has an important role in shaping social behaviours and in the development of secure interpersonal bonds. In the future, it can be a possible target for some psychiatric conditions; however, more research is required to prove therapeutic outcomes.

Disclosure: No significant relationships.
Keywords: Oxytocin in humans; behaviour; psychiatry; Oxytocin

EPV1223

Exposure to body odours combined with the effect of mindfulness treatment in patients with depressive and social anxiety symptoms - A preliminary study.

E. Vigna[1]*, V. Carli[2], G. Hadlaczky[2] and D. Wasserman[3]

[1]Karolinska Institutet, Lime - Department Of Learning, Informatics, Management And Ethics, Solna, Sweden; [2]Karolinska Institutet, Learning, Information, Management And Ethics, Stockholm, Sweden and [3]Karolinska Institutet, National Centre For Suicide Research And Prevention Of Mental Lll-health, Solna, Sweden
*Corresponding author.
doi: 10.1192/j.eurpsy.2022.1899

Introduction: To understand the way chemistry influences human communication is important since the reaction to chemosignals has many implications for science and society. For instance, previous research showed a connection between olfaction and affective psychiatric disorders. Olfactory processing may be impaired in subject presenting depression symptoms (DEP). Furthermore, a heightened sensitivity to social odours has been shown in subject with social anxiety symptoms (SAD). This may be due to the partial overlap of brain areas which are involved in olfactory processing and the pathophysiology of these disorders. Yet, more detailed research on the olfactory processing is required.
Objectives: POTION is an EU funded project within the Horizon2020 initiative that aims to understand the nature of chemosignals in humans and their sphere of influence on social interaction. Within this project, we conducted a preliminary exploratory study examining whether the odours may be utilized to support positive outcomes of psychological therapy. It evaluates the catalyst effect of the odour conditions on the effectiveness of mindfulness meditation for SAD and DEP.
Methods: Thirty subjects per patient group (total=60) are randomly allocated to one exposure group (happy or fearful human body odour or clean air) and follow the intervention while being exposed to the odour. Psychological outcome is measured before and after the intervention through the State-Trait Anxiety Inventory and the Profile of Mood State questionnaires. Analysis of variance is performed to assess outcome differences between groups.
Results: Preliminary results on a subsample of 32 patients show a trend of deeper reduction of anxiety symptoms at post-treatment among odour-exposed groups compared to clean air ($F(1,17) = 11.08$, $p=0.004$).
Conclusions: Final results on the complete sample will be available and presented at the time of the congress.

Disclosure: No significant relationships.
Keywords: Depression; Chemosignals; social anxiety; Body odour

EPV1224

TOO MUCH OF NOT ENOUGH: Exploring Lack of Fear and Its Consequences

S. Jesus*, A. Costa, G. Simões, G. Dias Dos Santos, M. Almeida, J. Alcafache and P. Garrido

Baixo Vouga Hospital Centre - EPE, Psychiatry And Mental Health Department, Aveiro, Portugal
*Corresponding author.
doi: 10.1192/j.eurpsy.2022.1900

Introduction: Fear is an unpleasant emotional response to perceiving a threat causing physiological changes. Humans feel fear for positive motives, as it plays a crucial role in our survival. Just as the right balance in life is ideal, pathological fear is often described in one of its exaggerations, of having too much. However, lack of fear or "hypophobia" can be just as devastating and debilitating. This can be demonstrated in the analogy between those who feel no pain who also demonstrate increased risk and decreased life expectancy.
Objectives: The authors aim to explore the concept of fear, discussing currently known physiological mechanisms in order to explain the effects that alterations of these mechanisms can have on fear responses, namely lack of fear, and subsequently the consequence of this on mental health.

Methods: A brief non-systematized literature review was performed based on works most pertinent to the topic discussed.
Results: Muted fear responses have been mentioned in the literature, principally associated with medical conditions affecting the physiological fear pathways, including Urbach-Wiethe disease. Amygdala damage provokes abnormal fear reactions and reduced fear experience. This appears to be similar to what is seen in psychopathy, where abnormalities in the limbic system produce abnormal fear responses.
Conclusions: Any extreme can cause havoc on a well-balanced machine. Just as the excess of fear results in mental issues such as anxiety, a lack of fear can also be debilitating. Those demonstrating less fear could help investigators better understand mental health disorders that have been demonstrated to be mediated by similar processes.

Disclosure: No significant relationships.
Keywords: Physiology; Psychopathology; fear; evolution

Psychosurgery & Stimulation Methods (ECT, TMS, VNS, DBS)

EPV1225

Outstanding Seizure Characteristics With Etomidate and Ketofol

H.C. Özden* and S.C. Gurel

Hacettepe University Faculty Of Medicine, Department Of Psychiatry, Ankara, Turkey
*Corresponding author.
doi: 10.1192/j.eurpsy.2022.1901

Introduction: Electroconvulsive therapy (ECT) is administered following general anaesthetic induction with methohexital, thiopental, etomidate, alfentanil, remifentanil, propofol or ketamine. One approach for idealizing the induction anaesthesia for ECT is combining two agents (e.g. ketamine-propofol) with synergistic anaesthetic properties and non-additive anticonvulsive and hyperdynamic effects.
Objectives: To establish any superiority between ketamine-propofol (ketofol) combination and etomidate in terms of seizure characteristics and hemodynamic measures.
Methods: We have combined our previous case series (etomidate vs thiopental) with new data regarding propofol and ketofol. ECT stimulus duration, stimulus frequency, the stimulus charge applied, duration of central seizure time, number of stimulation trials, plus anaesthetic used in the individual sessions were retrieved. A total number of 1092 sessions (239 sessions with etomidate, 233 with thiopental, 275 with propofol, and 345 with ketofol induction) were included in the linear mixed-effects model analysis.
Results: Etomidate was superior in terms of seizure duration compared with thiopental. There was no significant difference in seizure durations between ketofol, propofol and thiopental, however, number of failed stimulation trials within a session increased significantly with propofol use compared with etomidate and ketofol. The required amount of charge (stimulation dosage) was significantly lower when ketofol was used, compared with thiopental. Additionally, within the ketofol sessions only the propofol dose significantly increased the amount of required dose.
Conclusions: Etomidate and ketofol displayed certain superiorities in terms of seizure characteristics when used as induction anaesthetics for ECT. Therefore, both etomidate and ketamine used in combination with propofol may be considered to be the gold standards of ECT anaesthesia.

Disclosure: No significant relationships.
Keywords: anaesthesia; etomidate; Electroconvulsive therapy; ketofol

EPV1226

Suicidality during neuromodulation in the elderly depressed: study design

A. Van Daele[1], D. Zeeuws[1,2,3]* and C. Baeken[1,2,3,4,5]

[1]Vrije Universiteit Brussel, Faculty Of Medicine And Pharmacy, Jette, Belgium; [2]University Hospital Brussels, Department Of Psychiatry, Jette, Belgium; [3]Vrije Universiteit Brussel, Center For Neurosciences (c4n), Jette, Belgium; [4]Ghent University, Psychiatry, Gent, Belgium and [5]Eindhoven University of Technology, Department Of Electrical Engineering, Eindhoven, Netherlands
*Corresponding author.
doi: 10.1192/j.eurpsy.2022.1902

Introduction: Late life depression is a major global health issue, with an estimated 7% of older adults suffering from this mental disorder. Depression is one of the most important predictors for suicide in the elderly. However, it is often difficult to recognize and manage, making treatment-resistance a common occurrence. Treatment-resistant depression itself is also a known risk factor for suicide. Recently, non-invasive neuromodulation techniques have been used as a new treatment for depression and suicidality with promising results.
Objectives: This study aims to investigate the effect of adTMS (accelerated deep Transcranial Magnetic Stimulation) and tDCS (transcranial Direct Current Stimulation) on the suicidality of elderly, therapy-resistant depressed patients. The hypothesis is that suicidal ideation and risk of suicide will decrease after a treatment with adTMS and tDCS.
Methods: In this randomized double-blinded sham-controlled clinical trial, geriatric therapy-resistant depressive patients will receive adTMS treatment (See: Figure 1). Suicidality will be assessed before and after the active or sham treatment, through the Columbia Suicide Severity Rating Scale (C-SSRS) and Beck Scale for Suicide Ideation (BSI). After one week of rest, all patients will receive an at-home tDCS treatment for 3 weeks. Likewise, the suicide risk will be estimated before and after the tDCS. During the screening period, the severity of the patients' depressive symptoms will be determined by using the 17-item Hamilton Depression Rating Scale (HDRS-17). In total, the trial will last for 5 weeks, and suicidality will be examined at five different time points (during screening, at T0, T1, T2 and T3).