Methods As part of a comprehensive systematic review of Korsakoff’s Psychosis, an audit was performed of 114 individuals currently requiring long-term care in an approved psychiatric facility during the year of 2018. Medical and psychiatric diagnoses as well as pharmacological histories were examined. Alcoholic and non-alcoholic aetiologies were considered, the latter may be underdiagnosed (Nikolakaros et al, 2018).

Results Thirteen individuals were identified with a formal diagnosis of Korsakoff’s syndrome (KS) and all continue to require structured Inpatient care due to their levels of neurocognitive impairment and psychiatric presentations. Episodic memory is severely affected, as is the learning of new semantic memories. Patients with Korsakoff’s psychosis are capable of new learning in a calm, structured environment with cued new information (Kopelman et al, 2009).

Conclusions Individuals with Korsakoff’s psychosis may have comorbid psychiatric symptoms including mood, anxiety, aggression or psychotic disorders that command therapeutic interventions. Specific memory targeting intervention may not prioritized. Potential therapeutic interventions include Errorless learning (EL) which target levels of competence and independence (Rensen et al, 2017). EL is reported to improve symptoms of psychosis, aggression, apathy or mood disorders. Behavioural Interventions include environmental adaptations and cognitive remediation, which may be combined with pharmacological approaches such as donepezil or memantine to target cognition (Johnson and Fox, 2018). However, these approaches are not identical to those required by Alzheimer’s disease or other dementing disorders. Epidemiological and genomic studies could be preformed to identify those particularly at risk of developing this potentially life-altering condition.

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42 MULTI-AGENT ALLERGIES AS PREDICTOR OF FUNCTIONAL NEUROLOGICAL DISORDER

Abstracts

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Objectives/Aims Functional neurological disorders (FND) account for 20% of patients in neurology clinics and can lead to functional impairment, multiple re-attendances and significant cost. However, diagnosing FND remains challenging; identifying associated factors could aid earlier diagnosis. We aimed to determine the value of self-reported multi-allergies as predictor for FND.

Methods We retrospectively reviewed records of consecutive patients from two clinics (General Neurology and FND), St George’s Hospital, January 2015–June 2018. A logistic regression model was used in conditional fashion; statistically significant variables in univariate analysis were included.

Results Of 720 patients with definitive diagnosis, 243 (33.8%) had FND and 477 (66.3%) another neurological disorder. Mean age was 43 years (range 16–93), 63.9% (453) were female. 81 patients with FND (33%) had Non-epileptic attack disorder (NEAD).

In multivariate analysis, factors associated with FND were female sex (Odds Ratio [95% Confidence Intervals], OR=0.49 [0.33, 0.73], p<0.001), psychiatric comorbidity (OR=4.28 [2.89, 6.35], p<0.001), younger age (OR=0.97 [0.96, 0.99], p<0.001), coexisting fibromyalgia/chronic fatigue syndrome (OR=4.35 [1.26, 18.73], p=0.02) and allergies (OR=2.54 [1.79, 3.62], p<0.001). Polypharmacy, medical comorbidities, atopy and hypermobility were not significant.

Increased number of allergies increased the probability of FND: one allergy OR=4.53 [3.08, 6.65, p<0.001], two OR=9.09 [3.92, 21.09, p<0.001], three OR=16.74 [3.82, 73.43, p<0.001] and ≥4 allergies OR=42.94 [2.51, 736.02, p=0.009].

Conclusions Previous studies highlighted the increased prevalence of allergies in NEAD compared to epilepsy. Our study expand this to all FND, as only 1 in 3 FND patients had NEAD. Presence of allergies, particularly to multiple agents, should raise the suspicion of FND.

43 EFFECT OF DOPAMINERGIC MEDICATION ON RISK PREFERENCE IN PARKINSON’S DISEASE

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Introduction Dopaminergic medication being the standard therapeutic treatment improves motor symptoms in Parkinson’s disease (PD) but also implicated in the occurrence of impulse control disorders. Data driven computational models such as drift diffusion model utilise behavioural measures to explain subtle changes that are not sensitive to traditional analysis. Here, we aim to analyse risk preference in PD subjects in OFF and ON medication and the effect of dopamine on risk.

Methods Sixteen patients PD patients during OFF medication and 14 during ON were tested on the 2 step sequential learning task. We calculated the risk associated with each choice (variance of reward probability) and defined the choice with maximum variance as the risky one, for all 134 trials. With behavioural measures (selected choice- risky vs non-risky and response time) as inputs and risk as an independent factor, we extracted threshold (α), drift rate (v) and response bias (z) parameters using a hierarchical drift diffusion model (HDDM) for both groups during ON and OFF drug condition. Statistical analysis on the parameters was analysed using Bayesian factors.

Results Bayesian Independent sample t-test between the 2 groups (ON vs OFF) showed a strong evidence for differences in drift rate (BF10=34.28) and response bias (BF10=1.5×1013). We did not observe any evidence for correlation between RL parameters and z for both ON and OFF condition. Behaviourally, with respect to response time, independent sample t-test showed no significance difference.
between time taken to make risky \((t(28) = -1.28, p = \text{ns})\) and non-risky choices \((t(28) = -1.06, p = \text{ns})\). Similarly, no difference was found for change in risky choice selection in presence of the drug \((t(28) = -1.41, p = \text{ns})\). No differences were found in the traditional reinforcement learning parameters between the groups.

Conclusions Using a novel computational analysis, we showed that dopaminergic medication increased the preference to select a risky choice by modulating drift rate and response bias which was not captured by the behavioural measures. Critically we observe an effect on response bias highlighting the role of apriori information in influencing risky decision making.

44 LIFESPAN OF NEGATIVE EXPERIENCES IN FUNCTIONAL NEUROLOGICAL DISORDER PATIENTS

Aims Exploration of the relationship between negative life experiences and patients with Functional Neurological Disorder (FND), by analysing patient and non-clinical group responses to a new questionnaire called the Lifespan of Negative Experiences Scale (LiNES). LiNES was designed to examine predisposing vulnerabilities and perpetuating factors in individuals with FND by retrospectively assessing experiences of interpersonal trauma, affect and relationship insecurity at three developmental stages – childhood, adolescence and adulthood.

Methods LiNES, CATS (measure of childhood abuse and trauma), RSQ (measure of relationship insecurity) and PANAS (measure of affect) questionnaires were administered to 71 individuals with FND. Analyses were conducted to assess the reliability of the LiNES, explore correlations between different psychological domains within the FND group and to test whether LiNES scores predicted FND group membership. In addition, FND patients’ responses where compared to 270 matched healthy controls.

Results The LiNES subscales had high internal consistency and correlated with CATS, RSQ and PANAS. Levels of interpersonal trauma were higher in FND patients than controls during childhood, adolescence and adulthood. High levels of negative affect were found in FND patients in adulthood compared to controls but no significant differences were found between FND patients and controls in relationship insecurity at any developmental stage. On the RSQ, FND patients had higher anxious and avoidant relationship styles. LiNES trauma scores at each developmental stage predicted FND status with over 80% accuracy. Additionally, FND patients self-reported more symptoms (SDQ-20) and a higher prevalence of comorbid conditions compared to controls.

Conclusions The LiNES is a new brief retrospective measure of negative life experiences. Although psychological factors may not be necessary to the diagnosis of FND, they are substantially more common in FND patients compared to controls. In particular, a history of interpersonal trauma seems to play an important role in those with FND. These factors therefore are likely to play a pathophysiological role in many patients and their recognition is important for treatment. This study provides new insights into the association between the timing of negative experiences and the subsequent effect on an individual. Furthermore, the results support the use of LiNES as a valid screening tool in the clinical setting in patients presenting with functional symptoms with diagnostic and therapeutic implications.