observed in our sample is comparable to previously published findings in prison populations.

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BEST FOOT FORWARD? SUCCESSFUL MULTI-DISCIPLINARY NOVEL TREATMENT OF FIXED EQUINOVARUS DYSTONIA IN THREE PATIENTS WITH FUNCTIONAL NEUROLOGICAL DISORDER

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Objective/Aims Functional Neurological Disorder (FND) affects 10-30% of neurology outpatients. Symptoms commonly include sensory, motor and cognitive changes without structural nervous system damage. Fixed equinovarus dystonia (FEVD) of the foot and ankle is a common feature of FND

characterised by plantar flexion and inversion of the foot which cannot be corrected passively. This prevents weight-bearing often causing permanent wheelchair dependence. FEVD correction is necessary for patients to walk again. Consensus opinion is that invasive treatments are ill-advised and potentially detrimental in patients with FND. However, we have developed a novel approach that may challenge this opinion for a specific patient group, combining invasive treatments and neuropsychiatry interventions.

Methods A patient-led, goal oriented, multidisciplinary approach guided treatment. Treatments included functional electrical stimulation, botulinum toxin, tibial nerve block, serial casting and surgical intervention as an adjunct to specialist physiotherapy, occupational therapy, psychology. Standardised outcome measures of gait and mobility, balance, anxiety and depression were performed on admission and discharge. Patient consent was obtained for photo and video recording.

Case	19 years female dancer 5 year history symptoms 2 year FND diagnosis 19 week admission	33 years mother 12 year history symptoms 18 month FND diagnosis 12 week admission	30 years female PA 4 year history symptoms 3 year FND diagnosis 24 week admission
Wheelchair dependence	2 years	1.5 years	2.5 years
Discharge mobility	Independent walking	Supervised walking with crutches	Independent walking with frame
Pre-admission care needs	Carer QDS Hoist transfer Hospital bed Commode Downstairs living	Carer TDS Slide board transfer Downstairs living	Boyfriend full time carer Turning aid transfer
Discharge care needs	Nil	Carer BD	Nil
Six-month follow up	Dancing No care needs No recurrence of FEVD	Furniture walking Family support only No recurrence of FEVD	Returned to work Independent walking with crutches No care needs No recurrence of FEVD
Intervention 1	FES	FES	FES
Intervention 2	BoNT	TNB BoNT	TNB BoNT
Intervention 3	Not required	Ankle cast/splint	Ankle cast/splint
Intervention 4	Not required	Not required	Ankle manipulation under anaesthetic
Intervention 5	Not required	Not required	Surgical release of Achilles Tendon, Tibialis Posterior, long toe flexors

Abstract 30 Table 1 Functional Electrical Stimulation to common peroneal nerve (FES). Botulinum Toxin to posterior tibial muscles (BoNT). Tibial Nerve Block (TNB)

Results For three, wheelchair-dependent patients with FND and FEVD admitted to The Wolfson Neuro-rehabilitation Centre for 12-24 week inpatient treatment, our approach resulted in two walking independently and one with supervision. Care needs were reduced and wheelchair dependence was eliminated. Patients reported improvement in independence and quality of life with one patient returning to part-time employment as a PA (See Table 1).

Conclusions With selective psychological and medical screening, invasive treatment for FEVD in FND patients delivered through a careful, stepwise treatment pathway produced excellent results for this subgroup of patients. Though such interventions are usually avoided for patients with FND, there may be a subgroup of patients for whom they remain useful as a treatment adjunct in order to maximise rehabilitation and functional outcomes.

31 PREDICTION OF EMERGING AMYLOID AND TAU PATHOLOGY IN COGNITIVELY HEALTHY INDIVIDUALS: A LONGITUDINAL CSF STUDY

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Objectives/aims The importance of identifying emerging rather than widespread amyloid pathology is highlighted by evidence showing that rapid amyloid accumulation associates with cortical atrophy, cognitive deficits and tau deposition even where individuals are in the 'amyloid negative' range. The study aimed to test the hypothesis that among cognitively healthy individuals distinct groups exist in terms of amyloid and phosphorylated tau accumulation rates. We also hypothesised that membership to the faster accumulator group can be predicted (using age, genetics, cognition and hippocampal volume). Finally we aimed to identify time points of significant increase in the rate of AD protein accumulation and the associated predictors.

Methods The analysis reports data from 263 individuals from the BIOCARD NIH-funded study who had a mean of 2.23 cerebrospinal fluid (CSF) measurements since the study began in 1995. We used latent class mixed-effect models to identify distinct classes in terms of amyloid and p-tau accumulation rates. To investigate non-linear changes of AD-related CSF biomarkers we used generalised additive modelling. For both analyses demographic, genetic (APOE4 genotype) as well as repeated cognitive and structural MRI data were explored as predictors.

Results For both amyloid and p-tau latent class models we confirmed the existence of two separate classes: accumulators and non-accumulators. The accumulator and non-accumulator groups differed significantly in terms of baseline AD protein levels (mean age 60 at study inclusion) and slope. APOE4 homozygosity and cognitive reserve predicted amyloid class membership while APOE4 genotype only predicted p-tau class. The non-linear models revealed significant increase in the rate of amyloid and p-tau accumulation at ages 54 and age 55 respectively. APOE4 carrier status associated with earlier age of rapid accumulation start (ages 53 and 50 for amyloid p-tau respectively). Higher hippocampal volume but not cognitive

ability was protective for amyloid accumulation. Neither hippocampal volume nor cognition were significant in the p-tau non-linear models.

Conclusions The current analysis demonstrates the existence of distinct classes of amyloid and p-Tau accumulators. Predictors for class membership were identified but the overall accuracy of the models was modest highlighting the need for biomarkers that are sensitive to early disease phenotypes. That amyloid and p-tau concentrations remain largely static until the mid-50s with a simultaneous sharp increase in accumulation thereafter also suggests that prediction of these points of inflection can be valuable in targeting specific time periods in disease modification trials.

32 EMOTIONAL LABILITY IN HIPPOCAMPAL ATROPHY DUE TO AUTOIMMUNE LIMBIC ENCEPHALITIS

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Objective/Aims Autoimmune limbic encephalitis (LE) is commonly associated with cognitive and psychiatric disturbances at the acute stage of the disease, and with residual episodic memory impairment. While behavioural and psychiatric symptoms generally dissipate post-actively, very little is known about the profile of persistent neuropsychiatric symptoms. In particular, emotional lability represents an elusive entity that may be misdiagnosed as a manifestation of comorbid mood or personality change and can have disabling consequences, due to the stigma attached to the loss of emotional control. We aimed to assess the post-acute profile of emotional lability and its neuroanatomical correlates in LE.

Methods We analysed acute neuroradiological reports, clinical notes, scores on post-acute neuropsychological tests and self-administered questionnaires on mood, emotion, and affect (including the Centre for Neurologic Study-Lability Scale; CNS-LS), along with structural MRI and resting-state fMRI datasets in relation to emotional lability in a large cohort of patients (n=36) that had received a neurological diagnosis of LE, presented with focal hippocampal structural abnormalities in the acute phase, and post-acute hippocampal atrophy and thalamic volume reduction.

Results Emotional lability was present in 50% of the patients. It was associated with increased tearfulness compared with non-labile patients and healthy controls, whereas no patient presented with labile laughter (CNS-LS). Patients with emotional lability (n=18) did not differ from those without (n=18) in any demographic or clinical details in their acute or post-acute presentation (autoantibodies, immunosuppressive therapy, seizures, antidepressant medication, age at or delay from symptom onset), or in residual depression, anxiety, impulsiveness, memory impairment, or executive dysfunction, or in hippocampal and thalamic volumes. Instead, the presence and extent of emotional lability across patients was associated with reduced resting-state hemodynamic activity in and hippocampal functional connectivity with regions in the inferior and superior parietal lobules.

Conclusions We present the first investigation of persistent affective dysregulation in LE. Emotional lability is common following LE, but is not a manifestation of depression, anxiety, impulsiveness, or executive dysfunction. The type of