Results: A 50-year-old woman with major depressive disorder developed a condition marked by exuberant extrapyramidal symptoms 3 weeks after OP. Significant stiffness, tremor, dysphagia and facial hypomimia were some of the symptoms observed. Therapy was started with amantadine 100mg daily, with complete resolution of the symptoms after 5 days. Follow-up revealed reversal of extrapyramidal symptoms, in the absence of any neuroimaging changes or any other neuropsychiatric manifestations.
Conclusions: The possible overlap between catatonia and EPS is remarkable. The two conditions, regardless of their differentiation, may benefit from an identical approach using dopaminergic drugs. The use of amantadine, even in low doses, may be an option in the rapid reversal of extrapyramidal symptoms resulting from OP.

Disclosure: No significant relationships.
Keywords: organophosphate poisoning; extrapyramidal symptoms; extrapyramidal syndrome; Catatonia

EPV0542

Effects of the moderate stress exposure on the short-term memory capacity: An experimental study in fire cadets

E. Bityutskaya[1], N. Lebedeva[2]* and Y. Tsalikova[1]

[1]Faculty Of Psychology, Lomonosov Moscow State University, Moscow, Russian Federation and [2]Diagnostics Department, Moscow Metropolitan Governance University, Moscow, Russian Federation
*Corresponding author.
doi: 10.1192/j.eurpsy.2021.2064

Introduction: Future firefighters are selected and trained to perform well under pressure and stress.
Objectives: The research is focused on the experimental study of fire cadets' memory capacity under stress.
Methods: The study follows Solomon Four Group Design with two variables: stress stimuli (exposure/non-exposure), fire cadets (n=50)/civilian students (n=40). Two series of The Digit Span Test measurements (DST) were performed. Heart rate, EMG, systolic wave amplitude, pulse transit time were measured during the experiment to determine the respondents' stress levels.
Results: Memory capacity in fire cadets under stress (n=30) significantly increased (Wilcoxon match-pairs rank test, p = 0.001; 1st DST series, neutral stimuli: M=6.53, SE=0.17, SD=0.96; 2st DST series, stressful stimuli: M=7.3, SE=0.21, SD=1.16), the obtained effect size was medium (Cohen's d = 0.7232). There was no significant change in memory capacity in civilian students under stress (n=20, Wilcoxon test, p=0.452; 1st DST series, neutral stimuli: M=6.78, SE=0.23, SD=1.02; 2st DST series, stressful stimuli: M=6.7, SE=0.23, SD=1.04). Moreover, there was no significant change in memory capacity in fire cadets that were not under stress (n=20, Wilcoxon test, p = 0.628; 1st DST series, neutral stimuli: M=6.88, SE=0.16, SD=0.70; 2st DST series, neutral stimuli: M=6.78, SE=0.16, SD=0.73). Systolic wave amplitude in the stress-exposed groups changed more pronouncedly in students (Mann–Whitney test, z=-2.131; p = 0.033) compared to cadets.
Conclusions: In most of the fire cadets, moderate stress exposure resulted in a memory capacity increase.

Disclosure: No significant relationships.
Keywords: memory capacity; short-term memory; systolic wave amplitude; stress

EPV0543

Cognitive performance under stress: An experimental study in fire cadets

N. Lebedeva[1]* and A. Balakaeva[2]

[1]Diagnostics Department, Moscow Metropolitan Governance University, Moscow, Russian Federation and [2]Faculty Of Psychology, Lomonosov Moscow State University, Moscow, Russian Federation
*Corresponding author.
doi: 10.1192/j.eurpsy.2021.2065

Introduction: Future firefighters are trained and selected for a job requiring the ability to perform well under high stress and time pressure.
Objectives: The research is focused on the experimental study of fire cadets' cognitive performance indicators (speed/accuracy) under stress.
Methods: The study follows Solomon Four Group Design with two variables: stress stimuli (exposure/non-exposure) and participants' background (50 male fire cadets; 50 male civilian students). Stress stimuli consisted of emergencies' photos, audio, videos. ECG, EMG, systolic wave amplitude, pulse transit time were measured during the experiment to determine the respondents' stress levels. The cognitive reflection test (CRT) was performed. Mann-Whitney U-test, Spearman's rank correlation coefficient were used.
Results: There were no differences between students and fire cadets in CRT time (p=0.515, students: 118.1±38.6 sec, cadets: 143.5±78.1 sec) and accuracy (p=0.246, students: 1.2±0.9, cadets: 1.4±0.9). Fire cadets in the stress exposure group (mean time=122, mean accuracy=1.22) performed CRT significantly faster (p=0.039) than non-exposed cadets (mean time=166, mean accuracy=1.56). The accuracy difference was insignificant (p=0.206). Fire cadets with prior emergency work experience (n=30, mean time=159.7, mean accuracy=1.6) were no different from other cadets (n=20, mean time=159.7, mean accuracy=1.1) both in time (p=0.289) and accuracy(p=0.07). The performance difference between civilian student groups was insignificant (exposure: mean time=123, mean accuracy=1.32; non-exposure: mean time=113, mean accuracy=1.06).
Conclusions: Stress exposure enhances fire cadets' CRT performance (in speed, but not in accuracy). Emergency work experience did not contribute to this effect, which could be explained by the self-selection effect (since only people inclined to emergency work choose to become a firefighter).

Disclosure: No significant relationships.
Keywords: cognitive performance; cognitive reflection test; stress

Psychosurgery & stimulation methods (ECT, TMS, VNS, DBS)

EPV0544

Secondary psychosis after a temporal lobe resection in a patient with refractory epilepsy. A case report

A. Cerame Del Campo*, A. Franco Soler and P. Coucheiro Limeres

Centro De Salud Mental, Instituto Psiquiátrico José Germain, Leganes, Spain

*Corresponding author.
doi: 10.1192/j.eurpsy.2021.2066

Introduction: We present the case of a 34-year-old female patient with no prior psychiatric record who was treated in our outpatient department due to persecutory delusions of recent onset. The patient had a history of refractory temporal epilepsy since adolescence and underwent a temporal lobe resection 4 month prior to the appearance of her symptoms.
Objectives: Temporal lobe resection is a well-established technique to treat refractory temporal lobe epilepsy in which psychotic symptoms are an infrequent complication; the most frequent being cognitive sequelae, visual field defects and depression. According to several sources, this symptomatology may be underdiagnosed and undereportend and there have been a number of case reports and series of cases which describe the aforementioned entity.
Methods: A case report is presented alongside a review of the relevant literature regarding cases of secondary psychosis after brain surgery.
Results: During her treatment we administered olanzapine up to doses of 7.5mg per day because of the risk of reducing the convulsive threshold. We observed a marked improvement and the disappearance of the delusions. The dose of olanzapine has been maintained for a year with no important side-effects and without a relapse in symptoms.
Conclusions: Psychotic symptoms as a complication of temporal lobe resection may be more frequent than what was thought in the past. It is important to study this phenomenon more in-depth because the symptoms may remain undetected and present worse outcomes given that there are effective treatments which could ameliorate the condition.

Disclosure: No significant relationships.
Keywords: temporal lobe resection; secondary psychosis; temporal lobe epilepsy

EPV0545

Electroconvulsive therapy after conservative treatment of vertebral fractures

S. Martins[1]*, J. Quarenta[2], T. Teixeira[1] and J. Pinheiro[1]

[1]Departamento De Psiquiatria E Saúde Mental, Centro Hospitalar Tâmega e Sousa, Penafiel, Portugal and [2]Psychiatry Department, Centro Hospitalar entre o Tamega e Sousa EPE, Penafiel, Portugal
*Corresponding author.
doi: 10.1192/j.eurpsy.2021.2067

Introduction: Electroconvulsive therapy (ECT) remains a valuable treatment for major depression with psychotic symptoms. However, it is necessary to pay special attention when there is a history of fractures.
Objectives: Through the description of the following clinical case, we will emphasize the importance of screening for vertebral fractures within ECT and the different procedures that must be taken if that occurs.
Methods: We undertook a narrative literature review by performing a search on PubMed for English-written articles. The query used was "Electroconvulsive Therapy" AND "Vertebral Fractures".
Results: A 71-year-old woman was admitted with an episode of psychotic depression. Basic tests were performed and were all normal. After not responding to pharmacologic treatment, she was referred for ECT. The patient had a full recovery after 4 weeks of biweekly sessions. She was discharged and proposed for maintenance ECT. However, she started complaining of back pain after falling and did an X-ray and CT scan which revealed fractured L1 and L2. It was suggested conservative treatment with a Jewett orthosis. Within this period, the ECT was suspended and after a 4-week treatment, the fracture was consolidated. As there was no risk of neurological compression, the treatment was restarted with the same dosage of succinylcholine, and it was achieved complete muscular relaxation. The patient fully recovered without any orthopedic sequel.
Conclusions: Electroconvulsive therapy can be safely performed after conservative treatment of vertebral fractures, if special attention is provided to complete muscular relaxation. For this effect, the dosage of succinylcholine can be adjusted.

Disclosure: No significant relationships.
Keywords: ECT; Eletroconvulsive Therapy; Fractures

EPV0546

Looking beyond electroconvulsive therapy: A case report

D. Barbosa*, A. Sousa, A.S. Machado, R. Moreira and M. Mota

Psychiatry, Sao Joao Hospital and University Centre, Porto, Portugal
*Corresponding author.
doi: 10.1192/j.eurpsy.2021.2068

Introduction: Electroconvulsive therapy (ECT) is considered a gold-standart treatment of severe and treatment-resistant depression. Lack of response to ECT often causes distress in psychiatrists regarding the next therapeutic decisions.
Objectives: To present a case report of a patient with psychotic depression with partial response to ECT.
Methods: Clinical interviews and review of literature using the Pubmed platform.
Results: The authors present a case of a 60 year-old woman admitted for severe depressive episode with psychotic symptoms. Due to lack of response to multiple antidepressive and antipsychotic treatments, 15 sessions of ECT were performed with improvement of behavioral and psychotic symptoms. However, endogenous depressive symptoms with functional impairment persisted. It was then initiated Bupropion 300mg/day resulting in vast improvements on drive, energy and activity levels with restored functionality. Previously to ECT, Bupropion was not considered a valid option due to the psychomotor restlessness that was present. This case exposes the limitations of ECT and the therapeutic conundrums that arise when there is partial response. The symptoms expressed in the patient after ECT course correlate with deficits in noradrenergic and dopaminergic pathways that are involved in endogenous depression. The use of Bupropion, with its effect on noradrenaline and dopamine receptors, may offer a therapeutic lifeline in these cases.
Conclusions: ECT still stands as a gold-standart for severe depressive disorder, especially when several psychopharmacological therapies have failed. In cases of partial response to ECT, the neurobiological correlates of clinical presentation can guide the therapeutic management towards improved outcomes.