consecutive nights in the SI environment. On the day of testing, three same sex animals (naive with respect to social contact) were simultaneously introduced to the SI environment and allowed 5 minutes to interact. They were divided into four groups of three animals each, viz. HHH, NNN, HNN and HHN. The challenge was performed three times before treatment, each with different animals, and repeated after chronic oral treatment with escitalopram (50 mg/kg/day x 28 days). To prevent familiarity, animals were randomized for the post-treatment analysis but still grouped as explained above. Approach behaviour, episodes of proximity and duration of contact were scored using Ethovision® XT 11 software (Noldus Information Technology). Two-way ANOVA was applied to compare the behaviour of individual H and N deer mice in the various groups.

Results: HHH animals consistently displayed better sociability in all three of the above parameters vs. N controls in the NNN cohort. Although not significantly different before treatment, differences were significant following chronic escitalopram administration ($p < 0.05$). Furthermore, the sociability of both the HHH ($p < 0.0005$) and NNN ($p < 0.05$) animals improved significantly following treatment, with a profound improvement noted in HHH animals. However, social cohesion post-treatment between animals of the same cohort was lost when challenged with an animal from a different cohort, with only H animals in the HHN cohort demonstrating improved approach behaviour towards one another ($p < 0.05$). Also, a trend towards improved social contact was displayed between H and N animals in the HNN group post-treatment, while the interaction between NN animals remained poor.

Conclusion: In keeping with the clinical evidence that demonstrate deficits in sociability between OCD patients and normal peers, behavioural data from this study concurs that H deer mice present with the same form of deficits that respond to pharmacotherapy, thus reaffirming its validity as a translational animal model of OCD.

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P.1.h.009 Protective effects of an extract of propolis in scopolamine-induced cognitive impairment in rats

S. Gocmez[1]*, T. Demirtas[2], E. Aksoz[3], T. Utkan[2,4], N. Gacar[2]
[1]Namik Kemal University Medical School, Department of Pharmacology, Tekirdag, Turkey; [2]Kocaeli University Medical School, Department of Pharmacology, Kocaeli, Turkey; [3]Balikesir University Medical School, Department of Pharmacology, Balikesir, Turkey; [4]Kocaeli University, Experimental Medical Research and Application Unit, Kocaeli, Turkey

Purpose: Propolis is a natural substance collected by honeybees from buds and exudates of certain trees which has antioxidant, antibacterial, antiviral and anti-inflammatory and neuroprotective effect in neurodegenerative disorders including Alzheimer's disease(AD). However, in vivo effect of propolis in scopolamine (SC)-induced cognitive impairment in emotional and spatial memory testing models is not well evaluated. Therefore, the present neurobehavioral study was undertaken to evaluate the effects of propolis on SC-induced cognitive impairment in rats.

Methods: The water-soluble derivative of propolis was prepared from fresh Turkish propolis and its major constituents were identified by GC-MS analysis. Adult male Wistar-albino rats were divided into following groups: Control group, treated with physiological saline intraperitonally (ip); SC group, recieved 1 mg/kg SC, ip; SC+Propolis group, propolis (100 mg/kg) was given by ip 40 min prior to the ip injection of SC (1 mg/kg). The effect on amnesia was investigated with both passive avoidance (PA) and elevated plus-maze (EPM) tests. All drugs were freshly prepared and given before the acquisition session (on day 1) in both tests. In PA apparatus, which measures emotional memory, preacqusition, acquisition, and retention trials were carried out. In acquisition trial, an electric foot-shock (0.5 mA) of a 3 s duration was delivered to the animal via grid floor. Retention trial was evaluated 24 h post-training by returning the animals into the light compartment and recording their latency to enter the dark compartment. No foot-shock was applied in this trial. If the animal had not entered to the dark compartment, within 300 s, it was returned to its cage and a maximum latency of 300 s was recorded (retention latency). In EPM test, which measures spatial memory, acquisition (on day 1) and retention (on day 2) sessions were performed. Transfer latency (the time in which the animal moves from the open arm to the enclosed arm) was utilized as an index of learning and memory processes. In acquisition session, each rat was gently placed at the distal end of an open arm of maze and transfer latency was recorded. Retention trial was evaluated 24 h after acquisition session. The rats were placed into the open arm and the transfer latency was recorded again with maximum latency of 180 s. Kruskall Wallis test post hoc Dunn test and one way ANOVA post hoc Tukey tests are used for the statistical analysis.

Results: There was no significant differences between all groups for the first day latency in PA and EPM tests, while the second day latency was significantly shortened in PA test and prolonged in EPM test compared to control group in SC rats ($p < 0.05$), indicating impairment in their abilities and memory capabilities. However propolis given before SC, reversed SC-induced prolongation in second day latency of rats in EPM test and increased the retention scores in the PA test to the controls, indicating impaired memory retrieval.

Conclusions: Propolis reversed the SC-induced impaired emotional and spatial memory. The results of this study suggest that propolis may have pharmacological potential for preventing AD and other neurodegenerative diseases.

P.1.h.010 Behavioural characterisation of dehydroepiandrosterone effects in rats: further evaluation and the role of GABA(A) receptors

J. Samardzic[1]*, D. Svob Strac[2], D. Jadzic[3], M. Djuric[1], D.I. Obradovic[1] *[1]Medical Faculty University of Belgrade, Department of Pharmacology – Clinical Pharmacology and Toxicology, Belgrade, Serbia; [2]Rudjer Boskovic Institute, Division of Molecular Medicine, Zagreb, Croatia; [3]University of Cagliari, Department of Biomedical Sciences, Cagliari, Italy*

Purpose of the study: Dehydroepiandrosterone (DHEA), a neurosteroid synthesized in the central nervous system from choles-