

formation of memory traces depends on the post-synaptic transients of Ca²⁺ in the dendritic spines.

Aim of the study. This work provides an experimental study of the cranial meningeal function and ultrastructure that should change the view of meninges as a merely protective membrane. Considering the anatomical distribution in the CNS, it can be observed that the meninges largely penetrate inside the neural tissue. Thus, meninges may modulate most of the physiological and pathological events of the CNS by the presence of the ionic channels and proteins. This extensive experiment on laboratory animals will offer a different view of meninges' multiple roles in the context of a functional network with the neural tissue.

Materials and methods. All experiments were made according to the ethical policies for animal care and handling of the University of Sonora, Mexico. The meningeal tissue was collected from four 2 months-old (date of birth 11.06.2019) albino male rats. The experimental procedure was composed of: cell culture, total RNA isolation and reverse transcription protocol, reverse transcription and cDNA synthesis, PCR, Gel electrophoresis.

Results. Through this study we evaluated the expression of potassium channels type Kir, K_v, BK. The meningeal tissue expressed the subunits Kir 1.1, Kir 3.3, Kir 4.1, Kir 6.2 and channel type BK_a.

Conclusions. The results obtained suggest that meningeal cells have an important repertoire of potassium channels and calcium-mediated intracellular signaling mechanisms that should be studied pharmacologically and molecularly to help understand meningeal cell physiology and its contribution to brain cell communication.

Key words: Potassium channels, meninges, central nervous system, communication

277. HEART RATE VARIABILITY IN PEOPLE WITH BORDERLINE TYPE OF PERSONALITY

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Introduction. The incidence growth of the cardiovascular disease associated with psychiatric pathologies has led to increased attention on the autonomic nervous system. Heart rate variability (HRV) is considered as a measure of autonomic nervous system balance, and therefore it may provide a quantification of the physiological changes associated with mental illness. HRV cut is associated with a variety of psychological conditions and dimensions such as social status, executive function and emotional regulation. Borderline personality disorder (BPD) with a high rate of cardiovascular mortality, it is also characterized by emotional instability, which makes it ideal for studying heart rate variability.

Aim of the study. The purpose of the study is to determine autonomous changes to people with borderline personality disorder by studying the variability of the heart rate both during the break and in the pain test.

Materials and methods. The study was performed on 103 people, psychometric test, which preceded the recording of cardiac parameters, was realized with the help of the Personality Disorders Test (PDT) (Personality Inventory for DSM-5, PID-5). Thus, based on the results obtained from the PID-5 test, people were divided into 2 groups, the first-control group - 69 people (N = 69), the second group BPD- 34 people (N = 34). The protocol of the experiment

included the recording of the electrocardiogram using the computer system Biopac MP-36 during the break repose (R) - for 5 minutes; Pain test (P) - 3 min; post-pain (pP) -5 minutes. The primary data processing was performed using the program "Kubios HRV Standard (version 3.2.0, 2019).

Results. The HRV parameters of the spectral analysis (Fourier), including the LF components, the low frequency spectral variation as an index of the sympathetic modulation and the HF the high frequency spectral variation as a primary factor in the evaluation of the vagal activity, do not show significant differences between the both groups included in the study. Within the second group, in pP the low frequency (LF) increase with 16.3% in pP compared to R, ($p < 0,01$) and with 12% ($p < 0.05$), compared to P. This denotes a tendency towards dynamic emphasis on the sympathetic vegetative nervous system activity. Dynamic evaluation of the average values of the high spectral frequency (HF) variation is lower with 15.5% in pP than R ($p < 0.01$); and with 13% lower pP compared to P test, ($p < 0.05$).

Conclusions. The differences between the HRV parameters in the second group recorded in the functional tests could probably be explained by the high activity of the structures involved in the affective control of pain in people with borderline personality disorder.

Key words: Borderline Personality Disorder (BPD)

278. PREDICTIVE SCORES IN TRAUMA. CONTROVERSY

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Introduction. More than 50 score systems have been published for the classification of injured patients in emergency or intensive care medicine. A quantitative method for measuring trauma severity has many potential applications: patient triage, a common terminology about injuries severity, prognosis assessment, trauma care audit and epidemiological.

Aim of the study. To analyze the main scoring systems used in today's trauma care and to evaluate their efficiency in predicting the injury severity. To analyze specific alterations made to level up the sensibility and specificity of a score on different populations and to find different studies where trauma scores are being compared. And finally, the aim of the study is to find the advantages and disadvantages of different trauma scores.

Materials and methods. A systematic review of the literature using computer searching of Hinari Access to Research for Health Program database using PubMed Entre interface and Scopus. We have selected articles about the main scoring systems used in today's trauma care, as well as studies where they a being compared or where modifications are made to trauma scores.

Results. Trauma scores were introduced more than 30 years ago, for assigning numerical values to anatomical lesions and physiological changes after an injury. More than 50 score systems have been published for the classification of injured patients in emergency or intensive care medicine. This large number indicates that the prediction of outcome is and never will be perfect because the severity of the injury is complex and difficult to quantify. There is no consensus between the major trauma registries regarding the probability of survival estimation