Results. The neurological map of four methods (meditation, hypnosis, trance and daydreaming), that can induce ASC was analyzed. It was established the common component- the prefrontal cortex. The next step was studying pain mapping. We discovered that one of the areas involved in the pain phenomenon is, also, the prefrontal cortex. One of the function of it is that this region processes the pain signals and plans action to reduce the dolor syndrome. tDCS and binaural beats were analyzed as a methods of induction in ASC. The common mechanisms of action, of these two methods are the appearance of theta cortical waves and the involvement of the prefrontal cortex.

Conclusions. The prefrontal cortex becomes the main target in the prophylaxis and treatment of chronic pain, through induction in ASC.

Key words: altered state of consciousness (ASC), neuroimaging, chronic pain, neurostimulation

63. MENINGITIS IN STRUCTURE OF PATIENTS WITH NEUROINFECTIONS

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Introduction. Despite modern technologies and improved clinical care, meningitis remains an unsolved problem that leads to high morbidity and mortality rates worldwide.

Aim of the study. To evaluate the structure of meningitis in adults; to determine the risk factors in correlation with clinical outcomes, as well as the etiological factors of adult meningitis.

Materials and methods. It is a retrospective observational study conducted in Institute on Neurology and Neurosurgery from medical records of patients from 2015 to 2016 in the Neuroemergency section. 25 patients aged between 19 and 67 years with confirmed diagnose of meningitis were selected. The outcome was unfavorable for 15 patients (60%), 9 of them (36%) from both groups died. We evaluate the clinical features of the patients, cerebrospinal fluid, and the imagistic and laboratory tests.

Results. From cerebrospinal fluid examination we selected 18 cases (72%) of septic meningitis and 7 cases (28%) of aseptic meningitis. From clinical features we established a rate of 64% of the classic meningitis triad, and a rate of 44% of the alternative meningitis triad. Only in 7 (28%) of 25 meningitis the causal agent was identified: twice Treponema palidum, twice E.coli haemolyticum, Enterococcus Faecium, Streptococcus Viridans and Mycobacterium tuberculosis. The imagistic examination showed signs of meningitis only in 20% of the cases. Out of the laboratory tests we established the highest values of blood glucose in dead patients with septic meningitis (9.87 mmol/l). We have also determined an Odds ratio of 12 (95% CI 1.07 to 134.11, P<0.05) of correlation between death risk and diabetes mellitus in patients with meningitis. Other negative predictive factors were the following: high levels of erythrocyte sedimentation rate, low platelets count, high level of blood urea and creatinine.

Conclusions. The presence of diabetes in meningitis patients increased the mortality by 12. Diabetes is a strong independent risk factor for death in community-acquired adult bacterial meningitis. Other risk factors for negative outcome in meningitis patients were: high level of cell counts in cerebrospinal fluid, high level of blood erythrocyte sedimentation rate, urea and creatitine.

Key words: meningitis, cerebrospinal fluid, diabetes.

64. INDUCTION OF ALTERED STATES OF CONSCIOUSNESS THROUGH BINAURAL BEAT STIMULATION ON HEALTHY SUBJECTS, A PILOT STUDY

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Introduction. Altered State of Consciousness (ASC) is a phenomenon of major interest in the domain of modern neurosciences. Millennial experience and recent research provide convincing evidence that ASC such as trance, hypnosis, meditation, Samadhi and other ASC obtained through the use of oriental techniques are effective in the treatment of various diseases (I. Moldovanu, V. Vovc, 2015). The hypothesis of the study is that of proving the ability of modeling ASC using state-of-the art methods of brain neurostimulation with the aim of improving the therapeutic practices during treatment of chronic pain.
Aim of the study. Exploring the possibilities of ASC induction through Binaural Beat Stimulation (BBS).
Materials and methods. The study was conducted on 8 healthy volunteers aged 22-25 years. Stages of the study: 1. Pre-stimulation: Data collection through questionnaires with the aim of testing the psychological condition of the subjects. 2. Stimulation: performing BBS with 1-13Hz as well as the Placebo test. 3. Post-stimulation: evaluating the 5D-ASC questionnaire (5-Dimensional Altered States of Consciousness Rating Scale) with the aim of identifying and grading the ASC immediately after BBS (A. Dittrich, 2010)
Results. To summarize the 5D-ASC analysis performed on a subset of healthy subjects, two classes have been identified: 1. Affected by the ASC stimulation: 4 subjects (based on the inventory, average score of 5D-ASC > 10%, corresponding with the > 10 mm threshold of the 100 mm visual analog scale, as 100%) The differences are noticeable across all 5 scales of the 5D-ASC inventory, particularly on the VRS scale(Visionary restructuralization): Binaural beat stimulation: 31.50 vs Placebo: 13.75. Therefore, it can be concluded that the visual aspect of the ASC has been predominant. 2. Not affected by the ASC stimulation: 4 subjects (based on the inventory, average score of 5D-ASC < 10).
Conclusions. The results of the study have demonstrated that 50% of the healthy subjects are susceptible to the induction of altered states of consciousness through binaural beat stimulation. Further study is required in order to identify the susceptibility cause of particular subjects upon their induction into an ASC as well as validating the efficiency of the aforementioned states during the treatment of chronic pain together with other neurological and somatic pathologies.
Key words: altered state of consciousness, neurostimulation

65. FEATURES OF HYPOTHALAMIC SYNDROME IN ADOLESCENTS OF NORTHERN BUKOVINA

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Introduction. Juvenile hypothalamic syndrome of puberty age is a neuroendocrine syndrome of body rearrangement with hypothalamic, pituitary gland and other endocrine glands dysfunction. At the present stage, it is considered a predictor of metabolic syndrome in adults.
Aim of the study. To explore the functional state of the cardiovascular system in children who are sick with hypothalamic syndrome.
Materials and methods. We surveyed 52 children with hypothalamic syndrome (21 girls (40.4%) and 31 boys (59.6%)) treated in the Endocrinology department of the OCDL for the period from August to November 2017.
Results. The average age of patients was 13.6 ± 0.45 years (11-18 years). The parameters of physical development state of the endocrine, cardiovascular systems in children, the state of