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**XXXVIII INTERNATIONAL
SCIENTIFIC AND PRACTICAL
CONFERENCE
«Development of Modern
Science: State, Problems and
Prospects»**

**September 11-13, 2024
Brno, Czech Republic**

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year, 43.8 % – every six months, and 18.8 % are not sure. Also, 58.5 % claim that it is possible to take vitamins without consulting a doctor.

Conclusions. More than half of the interviewed parents take vitamin medications without a doctor's prescription and non-systemically. This not only does not improve the child's condition, but can lead to harmful consequences. In addition, more than a quarter of parents regularly, at least once a year, consume vitamin medications. Among the respondents, 56.3 % believe that vitamins can completely replace the lack of nutrients, that is false, because they are only a supplement to the main diet.

It is necessary to increase the awareness of parents about the undesirable consequences of the non-prescript use of vitamin medications and to increase the authority of the doctor as a consultant in health matters.

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FEATURES OF DIAGNOSIS AND TREATMENT OF POST-TRAUMATIC STRESS DISORDER COMBINED WITH TRAUMATIC BRAIN INJURY

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The role of latent persistent traumatic brain injury (TBI) in the development and course of acute stress disorder (ASD) and posttraumatic stress disorder (PTSD) is controversial, although many clinicians and health care professionals, as well as the community, assume that such a connection exists [1]. This raises the question of the

relationship between concussions and blunt head trauma and combat-related stress reactions and combat-related PTSD.

Since it is impossible to exclude the presence of mine-blast trauma injuries in most servicemen at some stage of participation in combat, this should be taken into account during the diagnostic process. With regard to traumatic brain injury (TBI), such as blast-related concussion, the effects of the primary blast on the brain are controversial [2]. The mechanism and consequences of excessive pressure in the brain due to an explosion are similar to those observed in a fluid percussion model in animals with mild TBI and cause ultrastructural and biochemical changes and associated cognitive deficits in rats [3].

According to the severity, TBI can be classified into three levels: mild, moderate, and severe. Different clinical criteria are used to define mild TBI, but there is no unambiguous consensus on this [4]. However, the generally accepted definition proposed by the American Congress of Rehabilitation Medicine includes concomitant reduced or altered state or loss of consciousness, i.e. interruption of awareness of self and environment for less than 30 minutes; post-injury (inability to store or receive new information) for less than 24 hours, and a Glasgow Coma Scale score of 13 or higher, which characterizes the quantitative level of consciousness.

In most of the TBI cases we observed, a number of post-concussion symptoms occurred immediately after the brain injury and included cognitive impairment of memory, attention and concentration; physical or somatic complaints of fatigue, sleep disturbance, dizziness and headache; and affective complaints of irritability, anxiety and depression. When evaluating TBI-related symptoms, clinicians should consider numerous factors related to the characteristics of the victim, the severity of the injury, and the time interval between injury and evaluation, which may affect functional and cognitive performance. Mild TBI can cause cognitive deficits not only in information processing speed, attention, and memory in the immediate post-traumatic period, but also in motor skills, as well as in problem-solving and general intellectual skills.

In most patients with mild TBI, good recovery of post-concussion deficits was observed within 4-8 weeks. However, some patients could recover much more slowly, and symptoms persisted for several months. Regarding the emotional consequences of TBI, the most common symptoms of anxiety after TBI were: “free-floating anxiety, timidity, intense anxiety, generalized anxiety, social withdrawal, interpersonal sensitivity, and disturbing dreams.” These symptoms are also similar to the characteristic symptoms of PTSD and therefore may be worth discussing when considering the incidence of PTSD in people with mild TBI.

Characteristic symptoms for PTSD include exposure to or observation of an event that threatens a person's well-being and the reaction to it – including intense fear, helplessness or horror; re-experiencing symptoms, such as recurrent and intrusive memories, nightmares, a sense of re-living the trauma, or psychological and physiological distress when reminded of certain aspects of the trauma; Avoidance of thoughts, feelings, or reminders of the trauma, as well as an inability to recall parts of the trauma, withdrawal, and emotional numbness; increased arousal, which manifests itself in sleep disturbances, irritability, difficulty concentrating, hypervigilance, or

exaggerated startle response. These symptoms have to cause significant regular activity impairments and persist for at least 1 month after the trauma. PTSD also has concomitant cognitive effects that include impaired concentration and decision-making, memory impairment and confusion; behavioral symptoms of increased relationship conflict, leading to social withdrawal, alienation, decreased intimacy, and poorer performance at work and/or regarding studying; as well as somatic complaints of exhaustion, insomnia, headaches, startle response, increased excitability, cardiovascular, gastrointestinal, and musculoskeletal disorders [5].

Symptoms of re-experiencing an extremely traumatic event through nightmares and intrusive thoughts are the main features of PTSD and play an important role in the debate about the coexistence of PTSD and TBI. One important question is whether PTSD can develop after a traumatic brain injury with concomitant symptoms of cerebrospinal fluid occlusion or cognitive impairment that lead to a lack of memories of the actual traumatic event. It is possible that PTSD can occur after TBI, but prevalence rates vary widely, from 20 to 52%.

In addition to the intense anxiety and distress that PTSD causes, symptoms such as a variety of cognitive problems, including learning disabilities and forgetfulness, difficulty paying attention and concentrating, slower information processing speed, and a sense of overwhelm with once simple tasks, have been identified that can be mistaken for signs of traumatic brain injury. Conversely, personality changes such as impulsivity, decreased insight, rigidity of thinking, and decreased motivation caused by TBI can also be misdiagnosed as PTSD.

The differential diagnosis of these combined conditions can be difficult because of the overlapping symptoms of PTSD and chronic post concussion syndrome, including noise sensitivity, fatigue, anxiety, insomnia, poor concentration, poor memory, irritability, anger, and depression. PTSD can exacerbate cognitive symptoms in mild TBI. Thus, the differential diagnosis of PTSD requires an understanding of the etiology of the various symptoms commonly seen after TBI. Understanding information that takes into account the neurological and psychological factors involved may suggest specific underlying mechanisms that can aid in early detection, diagnosis, and treatment. These efforts may improve treatment outcomes for the disabling manifestations of chronic post concussion syndrome and PTSD that impede recovery and adaptation to life after traumatic brain injury.

A prospective study of the natural course of PTSD showed that 54% of people diagnosed with PTSD at the initial stage remitted 24-36 months after the examination. Those who did not experience remission experienced an additional traumatic event during the follow-up period and were more likely to report other comorbid anxiety and somatoform disorders.

Thus, there is a significant overlap between TBI and PTSD, primarily in cognitive, emotional, and behavioral functions. With current clinical and scientific knowledge of the comorbidity of PTSD and TBI, we can only speculate whether the impairments caused by each of these factors “independently” can be additive or multiplicative, or create a so-called “ceiling effect” where the sum of the two factors is less than would be expected for each of them separately.

Although clear clinical guidelines for the treatment of combined TBI and PTSD have not yet been developed, there is a regulatory and scientific framework that would allow for this to be done in a scientifically sound manner to provide care to such individuals.

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ВПЛИВ ЛІКУВАЛЬНО-ПРОФІЛАКТИЧНОГО КОМПЛЕКСУ НА СТАН ЗУБІВ ДІТЕЙ 2-5 РОКІВ НА ФОНІ НЕДОСТАТНЬОГО ВМІСТУ ВІТАМІНУ D

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Карієс зубів, як і раніше, залишається найбільш поширеним хронічним захворюванням серед дитячого населення. Світова статистика показує, що значну частку у структурі даної патології займає карієс тимчасових зубів у дітей віком до шести років [1, 2].