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Case Report

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Large cavum septum pellucidum associated with posttraumatic stress disorder: a case report

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Abstract

During routine examination of a patient with posttraumatic stress disorder, a large cavum septi pellucidi was noted on CT scan. Cava septi pellucidi were seldom reported as a finding in posttraumatic stress disorders. In our opinion, large cava are only the marks of the brain susceptibility for various neuropsychiatric diseases and disorders.

Key words: [septum pellucidum] [cavum] [posttraumatic stress disorder]

Introduction

An increased prevalence of cava septi pellucidi (CSP) among patients with posttraumatic stress disorder (PTSD) was previously reported [1], while large CSP, isolated or associated with other dismorphogenesis, were mostly obtained among schizophrenics [2, 3].

Case Report

Male, born in 1956, right-handed, married, father of two children (son, 17 and daughter, 15) with high school education level, was a participant of the war in the former Yugoslav republic of Bosnia and Herzegovina. In 1992, he was wounded, captured and maltreated while hospitalized and prisoner of war in a concentration camp. He limps today as a consequence of the neglected bad medical care in the hospital. He has even survived a slaughter attempt, from which he has a remarkable scar of approximately 11 cm, beginning from the anterior part of the neck, spreading laterally, over the sternocleidomastoid region. He was released in June 1995. Three months later, in September, first symptoms of PTSD appeared in the form of vegetative symptoms, such as dyspeptic troubles, gastric pain and pirosis, loss of the appetite, and nightmares, followed by extensive sweating. He was ashamed to visit a psychiatrist, despite much advice coming from his wife and friends ("They will say that I am a lunatic"), due to the fear from the potential neglect of his friends and co-workers and from the possibility of loosing his job (he was an active soldier at the time, in rank of the sergeant-major). The intensive fear resulted by flashbacks, avoiding behavior, decreasing of the frustration tolerance threshold, anxiousness and depressive mood, manifested by loss of the interest for self-care, loss of the will for initializing an attempt. Nightmares with war scenes became more and more frequent, his attention became more and more vigilant, and he fell into the "magic circle" from which he could not get out by himself.

In his premorbid personality, certain rigidity dominated his attitudes, openly expressed in raising children (i.e., he was a very strict father), but he has never punished them physically, nor did he have violent outbursts toward his wife or other persons.

In the personal anamnesis, when he was 16, he faced an early loss of his father, who died in a mine accident in 1972. He has gave up an offer to continue the education in the Military Academy, because he had to take care of his mother, brother and sister. He was a moderate smoker

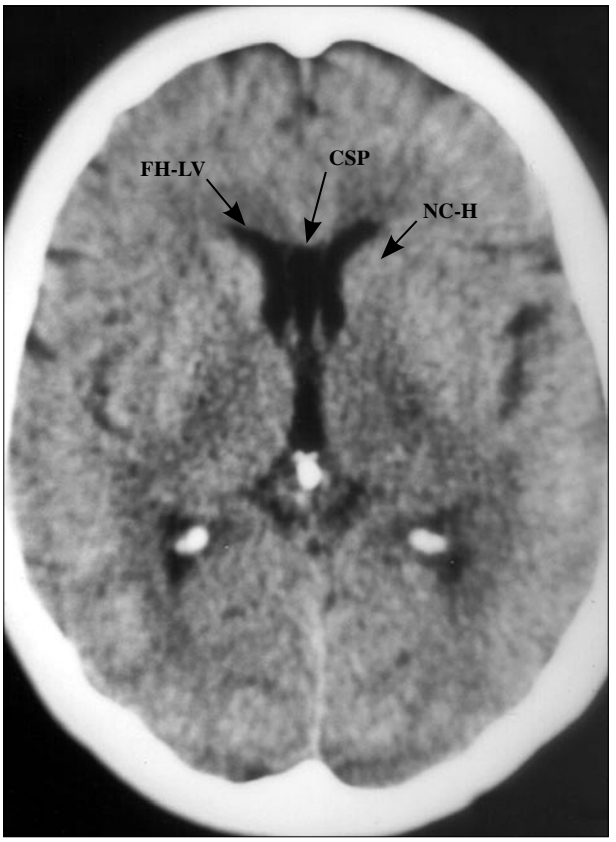

Figure 1. CT scan of cavum septi pellucidi (CSP) in our patient. Frontal horns of the lateral ventricle (FH-LV). Head of the caudate nucleus (NC-H).

(less than a box of cigarettes) and his consumption of alcohol beverages was reduced to socially acceptable circumstances. According to the data obtained from his wife, he was a very thoughtful husband and father, and a devoted friend. His military record and the observation of his superior officers from his file were almost perfect.

He denied receiving serious head blows in the concentration camp and before or after that period. There was no evidence of loss of consciousness or crisis in his anamnesis or medical history.

He has addressed the psychiatrist for help in May 1996, faced with threat by his wife. The PTSD diagnosis was established after the first session, according to criteria from 10th revision of the International Classification of Diseases. In 1999, he came to Belgrade, asking for legal advice in order to get reimbursement from the Army, and he was recommended to visit our psychiatric office. He was admitted shortly after, and he underwent standard CT scan procedure (he could not afford MRI scanning, because social insurance was unable to cover his treatment), where a large CSP (8x19 mm, Figure 1) was obtained, without signs of cortical or subcortical brain atrophy in any brain region. The same finding persisted in control CTs performed every six months. Electroencephalogram did not reveal any oddities in his brain activity.

Psychometric evaluation showed the patient to have an average intelligence. MMPI-2 showed a high depressive peak, and he scored 19 on Hamilton Anxiety Rating Scale and 27 on Hamilton Depression Rating Scale. Beck Depression Inventory score was 43. There was no evidence of the cognitive deficit.

Initially, he was treated with antidepressant amitriptyline in doses of 40 mg pro die, divided in two equal doses administrated morning and evening. Anxyolytic therapy consisted of bromazepam in doses of 3 mg, three times per day. He was also advised to visit a psychotherapist, which he refused. All the efforts for his treatment remained without response over next few years, even after his pharmacotherapy changes (amitriptyline was replaced by clomipramine, and carbamazepine and cinerazine were added), but his psychological state did not get worse, either. Our pharmacotherapy consisted of sertraline, in a single dose of 50 mg/day, combined with hypnotic brotiazolam, and his state slightly improved after six weeks. Actually, he can take care of himself reasonably well, his nightmares have almost disappeared. His social life is increasingly improving, but he is still under the same medication and the strong surveillance of his wife.

Discussion

The large CSP finding has not been reported yet in PTSD suffering persons, according to the available literature sources. The septum pellucidum cave in our patient could be considered as a large one, according to criteria settled by Nopoulos et al. [2], who stated that cava greater than 6 mm in length could be taken as abnormally large. Higher prevalence of large cava septi pellucidi was revealed in schizophrenics, developmentally delayed population, and, in relatively lower percentage, in brains of aggressive persons and alcoholics [4–10]. MRI guided study on patients suffering from PTSD showed that 50% of them had a detectable small CSP [2]. It is probable that large CSP is a congenital brain midline malformation which indicates inborn susceptibility of the brain to neuropsychiatric disorders, including PTSD.

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