

PSYCHO-COGNITIVE SYNDROME, BLINDNESS AND TETRAPLEGIA AFTER SEVERE TRAUMATIC BRAIN INJURY IN POLYTRAUMATIC CONTEXT (ROAD ACCIDENT) WITH FAVORABLE RECOVERY OF COGNITIVE AND MOTOR DEFICITS

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Abstract

Introduction:

We live in a multisensory environment and the interaction between our genes and the environment shapes our brains. Cortical blindness as a result of head trauma (to the brain's occipital cortex) is a rare phenomenon and can be a total or partial loss of vision in a normal-appearing eye. How patients will adjust to the loss of vision and its consequences might be a challenge let alone if they have mobility impairment (tetraplegia) as well. Adaptation and reintegration of patients into society after motor recovery in the context of visual sensory deficit is mandatory. Cognitive and behavioral changes, difficulties maintaining personal relationships and coping with school and work are reported by survivors as more disabling than any residual physical deficits. As with all rehabilitation, the goal is to help the person achieve the maximum degree of return to their previous level of functioning.

Material and method:

Having the patient and TEHBA Bioethics Committee approval No.9181/11.04.2018, we will present the evolution of a case with posttraumatic spastic tetraplegia post severe traumatic brain injury, blindness post traumatic bilateral occipital lesions and psycho-cognitive syndrome. Clinical and para-clinical aspects will be discussed (patient history and clinical examination, results of imaging and laboratory tests, the nerve, muscles, joint and kinesiology exams, specific rating scales, both medical and kinesio-therapeutic treatments).

Results:

We will address the case in terms of particularities and treatment approach (neurorehabilitation of a motor deficit in the context of a major sensory deficiency) and evolution during hospitalization.

Conclusions:

Trauma has been known to result in cortical blindness but the exact pathophysiology remains unknown and remains a matter of continued debate. Cortical blindness may occur after trauma, however, most cases regardless of etiology, are reversible and have no long-term sequelae. While TBI can cause long-term physical disability, it is the complex neurobehavioral sequelae that produce the greatest disruption to quality of life. As with all rehabilitation, the goal is to help the person achieve the maximum degree of return to their previous level of functioning. In the setting of polytrauma, a careful ophthalmologic and neurologic examination of the trauma patient, together with a high index of suspicion, is necessary for the diagnosis of this condition. Heightened awareness of the causes should be followed with appropriate imaging and management.