

From mild traumatic brain injury to persistent postconcussive syndrome: a forced development to chronic disability?

Daniela Smirni¹, Laura Smirni²

Mild head injury represents a complex pathology, in which many somatic and psychological factors are involved, especially when symptoms enlarge and last in persistent postconcussive syndrome (PPCS).

However, minor head injury should not be undervalued. Its natural history, in fact, is much longer than physicians allow, but it can't be considered per se the first step of a forced development to a chronic disability.

Mild traumatic brain injury, in fact, neuropathologically, differs from severe traumatic brain injury only on a quantitative standpoint. As in severe trauma, the primary neuropathology is diffuse axonal injury. However, in most cases, neurobehavioral and neuropsychological symptoms gradually improve, although there are some risk factors for developing persistent symptoms and chronic disability.

In fact, the brain injured, may be, frequently, rewarded by financial awards for exhibiting and persisting impairment. Yet, the severity of trauma is defined by the acute injury features and not by severity of symptoms long after trauma. Additionally, for any symptom to be considered as a consequence of trauma it must be consistent and in accordance with neuropathology of injury, systemic organization of damaged cortical functions, premorbid personality and post trauma context of patient.

A basic assumption is that all patients improve, both neurologically and neuropsychologically, although the time course of full recovery may be much longer than once considered. In fact we do not know of any features of trauma that per se, neurologically speaking, lead to progressive deterioration. With regards to somatic and psychological symptoms associated with traumatic neurologic injury, it is very important to differentiate them from primary neural injury. PPCS must be understood through a diagnostic approach able to differentiate the role of associated somatic and psychological symptoms from the primary neuropathology, that gradually improves to full recovery according to acute injury characteristics.

PPCS doesn't result from the trauma per se or single psychological and somatic symptoms, but instead from variables such as age of patient, premorbid personality, complicating factors, context after trauma, psychological and emotional characteristics and severity of associated symptoms.

Only an holistic approach which considers the patient's personal history, trauma characteristics, quality and consistency of the symptoms, and neuropsychological data provides an adequate understanding of symptomatological progress, its real significance and the factors that cause it.

¹*Psicologo*

E-mail: daniela.smirni@tin.it

²*Medico – specialista Medicina Fisica e Riabilitazione*

E-mail: laurasmirni@virgilio.it