

## Summary

Alexithymia represents a deficit in identifying and expressing emotions, paucity of fantasies, and an externally oriented cognitive style. Currently, numerous studies document that alexithymia and several mental and somatic disorders are significantly related. Several findings also indicate that this association might be caused by alexithymia related dysregulation of neuroendocrine and immune functions. Together these findings indicate that stressors related to alexithymia could underlie the process of neuroendocrine and immune dysregulation that likely may present a significant risk, sustaining and mediating pathogenesis of several disorders and particularly psychosomatic illnesses. In this context, it is also known that several proinflammatory cytokines may play a role in pain generation and that alexithymia is significantly associated with pain symptoms in several pain disorders.

Following these findings this study includes several new data developing current state of the art and showing some alexithymia specific changes in patients with neurological disorders. Main finding of this study shows that alexithymia and anxiety in their specific interactions are linked to increased levels of interleukine-8 (IL-8) in cerebrospinal fluid (CSF) in the group of patients with non-inflammatory neurological disorders (NIND). This finding suggests that IL-8 could have exceptional role in mediation of the relationship between psychopathological symptoms and inflammatory response.

Other main results of this study indicate that increased neuropathic pain in sciatica patients is associated with elevated levels of alexithymia, depression, anxiety and C-reactive protein (CRP). In this context, several proinflammatory cytokines including IL-8 have been suggested to play an important role in pathogenesis of the neuropathic pain and may link it to psychopathological symptoms.

In this context, future studies focused on disturbances of cytokine production in alexithymia and other psychopathological symptoms could provide new research directions and potentially useful clinical findings in specific groups of neurological patients.