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The words of pain in complex regional pain syndrome

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A B S T R A C T

Complex regional pain syndrome (CRPS) encompasses a wide range of painful conditions, but it is characterised by continuing (spontaneous and/or evoked) limb pain that is seemingly disproportionate in time or degree to the usual course of any known trauma or other lesion. The pain is regional, with distal predominance usually but not related to a specific nerve territory or dermatome, and it is usually associated with abnormal sensory, motor, sudomotor, vasomotor and/or trophic findings. The complexity of the aetiopathogenetic factors making up the clinical picture of CRPS is mirrored by the inconsistency of almost all of the monotherapies used to treat it so far.

Motor and sensory symptoms significantly interfere with the patients' daily function and quality of life, and almost all of them report substantial disability in their working and recreational activities, mood and mobility.

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Introduction

Complex regional pain syndrome (CRPS) encompasses a wide range of painful conditions, and it is characterised by continuing (spontaneous and/or evoked) limb pain that is seemingly disproportionate in time or degree to the usual course of any known trauma or other lesion. The pain is regional, with distal predominance usually but not related to a specific nerve territory or dermatome, and it is typically associated with abnormal sensory, motor, sudomotor, vasomotor and/or trophic findings.

Trying to identify the descriptors of CRPS is as frustrating as unambiguously defining the syndrome itself. Since the first description by Weir Silas Mitchel, a wide range of definitions have been proposed on the basis of new insights into its pathophysiology [1]. Although it is not the aim of this paper to consider all of the pathophysiological theories concerning the origin and maintenance of CRPS, they are worth citing because at least some of them can contribute to the words patients use to describe their pain [2].

CRPS has been attributed to an inflammatory process, including hypoxia/reperfusion injuries and the release of pro-inflammatory agents; the autonomic nervous system (dysregulation, autoimmune disorders or small fibre neuropathy); more central nervous system involvement such as central sensitisation, cortical reorganisation and/or the effects of psychological stress; abnormal sensitivity to neuropeptides; and genetic factors [3]. Therefore, it is not surprising that the complexity of the aetiopathogenetic factors making up the clinical picture of CRPS is also reflected in the inconsistency of almost all of the monotherapies used to treat it so far [4].

Pain and CRPS

How can the pain in CRPS be described?

In an attempt to answer to this question, it is necessary to consider the most recent and widely accepted definitions proposed by scientific societies involved in the field of pain but, although they are clearly written and understandable, their clinical application has been elusive and sometimes inappropriate.

In 1986, the International Association for the Study of Pain (IASP) described the syndrome as ‘continuous pain in a portion of an extremity after trauma which may include fracture but does not involve a major nerve, associated with sympathetic hyperactivity’, therefore naming it reflex sympathetic dystrophy (RSD) [1,4]. However, by placing the emphasis on sympathetic involvement rather than pain, this offers little help in identifying the ‘kind’ of pain that represents the syndrome's classic clinical feature. More recently, the IASP introduced the new term of CRPS (thus reflecting the major role of the painful condition) and proposed dividing it into type I and type II by defining a standardised set of diagnostic criteria [5].

Table 1
The Budapest clinical diagnostic criteria for CRPS 2007.

Continuing pain, which is disproportionate to any inciting event
Must report at least one symptom in three of the following categories
- Sensory
- Vasomotor
- Sudo-motor/oedema
- Motor/trophic
Must display at least one sign at time of evaluation in two or more of the following categories
- Sensory
- Vasomotor
- Sudo-motor/oedema
- Motor/trophic

There is no other diagnosis that better explains the signs and symptoms.
If seen without *__major nerve damage__*, CRPSI is diagnosed; if seen in the presence of *__major nerve damage__*, CRPSII is diagnosed.