

Prevention of Complex Regional Pain Syndrome

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The word 'complex' describes this pain entity appropriately in that despite many years, and unceasing interest on the subject, there is paucity of evidence on the prevention of Complex Regional Pain Syndrome (CRPS).

The IASP definition of CRPS reads: *"CRPS Type I is a syndrome that usually develops after an initiating noxious event, is not limited to the distribution of a single peripheral nerve, and is apparently disproportioned to the inciting event. It is associated at some point with evidence of oedema, changes in skin blood flow, abnormal sudomotor activity in the region of the pain, or allodynia or hyperalgesia"*

The Budapest consensus criteria used by the International Association for the Study of Pain (IASP) for the clinical diagnosis of CRPS is found to be equally sensitive and more specific compared to earlier CRPS criteria in differentiating CRPS from other types of neuropathic pain. Continuing pain disproportionate to any inciting event is the first criterion, followed by a specified number of signs and symptoms of sensory, vasomotor, sudomotor/edema and motor/trophic changes. There should also be no other diagnosis that better explains the signs and symptoms.

Prevention of CRPS can be either primary or secondary.

For primary prevention, the administration of daily doses of Vitamin C showed a significant reduction in the prevalence of CRPS among patients with distal wrist fractures in two studies. However a third study found no difference between the vitamin C group and placebo. A meta-analysis of the three trials found a nonsignificant trend towards benefit of vitamin C. A balance between immobilization for healing of fracture and early mobilization to reduce the risk of CRPS is essential.

To prevent relapse, postponing surgery until CRPS signs are minimal seem prudent. Regional anesthetic techniques are preferred. Evidence show that the addition of clonidine to local anesthetic for regional block, utilization of multimodal analgesia and the subcutaneous use of salmon calcitonin are preventive of CRPS relapse.