Complex Regional Pain Syndrome (CRPS) www.fmcmpd.org Devin J. Starlanyl

Complex Regional Pain Syndrome (CRPS) is a progressive neuropathic illness that comes in two basic forms. The two types differ only in the nature of the initiating factor:

Type I, originally called reflex sympathetic dystrophy, (RSD) occurs without specific direct nerve damage.

Type II, once called causalgia, occurs after a specific nerve injury that may or may not have been traumatic. Despite there being evidence of nerve injury, we are not sure of the mechanisms behind the development of Type I CRPS.

With both forms of CRPS, the intense pain is out of proportion to the original injury, and is accompanied by swelling, changes in skin temperature and coloration, and extreme sensitivity. CRPS typically develops after an injury, surgery, heart attack, or stroke. The pain is out of proportion to the initial event. It may begin in one limb, but can start anywhere. If it is not diagnosed and appropriate treatment provided within the first few months, it often spreads to additional areas. There are four main symptoms of CRPS:

1) The affected area may feel cold to the touch, the patient may feel as though it is burning. This symptom includes hyperalgesia (amplification of pain) and allodynia (pain from normally non painful sensations, such as touch, noise, wind, and sound); both of which it shares with fibromyalgia (FM). The burning and sensitivities CRPS shares with some trigger points (TrPs).

2) Inflammation can affect skin appearance of the skin. This may include bruising, mottling, and/or tiny red spots. The affected area may turn shiny, waxy, thin, raspberry or deep purple in color and this may be accompanied by changes in temperature and sweating. Color and temperature changes and sweating can also occur with specific TrPs and FM.

3) There may be blood vessel spasms (vasoconstriction), nerve spasms, and rolling or other muscle spasms. This may be confused with TrP blood vessel and nerve entrapment.

4) Insomnia and cognitive dysfunctions may include central nervous system changes, memory dysfunction, difficulty focusing and/or concentrating, sleep disturbances, confusion, etc. These it also shares with fibromyalgia (FM).

Emotional or physical stress can worsen pain, which may also provoke a stress reaction of fight/ flight/ startle/stun. Additional symptoms may include: irritability, sensitivity to weather changes including barometric pressure; depression, fatigue; changes in hair/nail growth (nails can become brittle, cracked, or grooved - increased/decreased hair/nail growth); softening and thinning of bones and muscle loss/changes, atrophy/weakness; swelling and stiffness in effected joints; throbbing, crushing, tingling,; shooting, aching, stabbing, burning pain in the affected area;

tremors (shakes); chills; lack of fine motor control in the affected areas; dystonia; and /or migraines/cluster headaches. Some of these symptoms are shared with other conditions, including specific TrPs and FM. CRPS may progress to irreversible changes in the skin and bones, while the pain becomes intractable and may involve much of the body. There may be marked muscle atrophy, severely limited mobility of the affected area, and flexor tendon contracture. These symptoms may vary with time, aggravating factors such as stress, and treatment. Drop attacks (falls), almost fainting, and fainting spells are infrequently reported, as are visual problems. Since CRPS is a systemic problem, potentially any organ can be affected. CRPS symptoms are often missed or misdiagnosed. One version of the McGill Pain Index ranks CRPS highest in pain intensity, above childbirth or cancer.

In CRPS, there may be sympathetically maintained pain (SMP), sympathetically independent pain (SIP), or both. Treatment directed at SIP will not help a patient who has SMP. Treatment focused on the SMP will not resolve the symptoms of a patient with SIP. For the patient with both SIM and SMP, treatment focused on one of these components will only be partially effective. Treatment is often most effective when started early, but diagnosis and treatment of CRPS is often delayed.

Patients with FM may be at risk for development of CRPS. Wind-up, the increased sensation of pain with time (also called temporal summation of second pain or TSSP) and central nervous system (CNS) sensitization are key neurologic processes that appear to be involved in the induction and maintenance of CRPS. These it shares with FM, along with some other pathological mechanisms, (3) although there are differences. (4) Chronic myofascial pain and dysfunction (CMPD) due to TrPs may be another risk factor for development of CRPS. At least half of CRPS patients have myofascia pain, and all CRPS patients should be assessed for TrPs. (1) Treating the TrP component may help ease some of the symptom burden. (2;6)) "It is strongly recommended to consider the diagnosis of CRPS in all patients with a long-lasting pain condition." (5)

When there are multiple and sometimes interacting conditions in one patient, it can be difficult to prioritize treatments. The use of a multi -pronged approach to treatment, targeting conditions that can benefit the whole patient, such as lack of restorative sleep and chronic pain, is suggested. No specific test is available for CRPS. It is diagnosed primarily through symptoms.

References:

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