

Clinical Pearls: Complex Regional Pain Syndrome (CRPS)

CRPS is a debilitating, painful condition in a limb associated with sensory, motor, autonomic, skin and bone abnormalities. The pain is regional, and has distal predominance of abnormal sensory, motor, sudomotor, vasomotor, and/or trophic findings. It is believed that it is caused by damage to the peripheral and central nervous system.

There are two types of complex pain regional. Type 1 is known as reflex sympathetic dystrophy, corresponds to patients with CRPS without evidence of peripheral nerve injury and represents approximately 90% of clinical presentations. Type 2 is known as “causalgia” and refers to cases in which the peripheral nerve is injured.

Causes of Complex Pain Regional:

The true cause of complex pain regional is not really understood. It is believed that it is caused by a combination of factors and they can all lead to a cascade of pain responses. The different combinations of factors include:

1. Nerve damage from an injury, surgery, or stroke
2. Inflammatory response caused after an injury, leading to redness, warmth, and swelling
3. Immune system dysfunction
4. Blood flow changes

Risk factors:

Gender and age (most common in women around 40), injury or trauma, nerve damage, genetic factors, immune system response

Symptoms:

Pain: Described as a burning, stinging, or tearing, felt deep inside the limb. The pain is continuous and undulating but can be paroxysmal. Pain worsens at night, exacerbated by limb movement, contact, temperature variation or stress.

Sensory abnormalities: Hyperalgesia, allodynia, or hyperesthesia on examination. These usually occur in the distal limb.

Motor symptoms: About $\frac{2}{3}$ of patients with complex regional pain have functional motor impairments related to pain. Motor symptoms are believed to be caused by a



reduction in complex muscle strength. The symptoms to keep an eye out for is reduction of limb strength. Some patients develop dysfunction in central motor manifestations such as tremor, myoclonus, dystonic postures, or impaired initiation of movement.

Autonomic changes: The most common autonomic change is a skin color change, edema, and increased sweating.

Prescription therapeutic options:

- Ibuprofen 400-800 mg 3 times a day, Naproxen 200-500 mg 2 times a day
- Gabapentin 100-300 mg once a day at bedtime
- Amitriptyline or nortriptyline 10-25 mg once a day at bedtime
- Alendronate 40 mg once a day for eight weeks
- Lidocaine cream three times a day
- Capsaicin 3 times a day
- Prednisolone 40 mg once a day x four weeks
- Piroxicam 20 mg once a day x four weeks
- Ketamine 0.25 to 0.5 mg/kg solution

Olive Tree therapeutic options:

- Low Dose Naltrexone (LDN)
- Omega-3 Fatty Acids
- Curcumin
- Magnesium Glycinate
- Vitamin D
- Ginger
- MSM (methylsulfonylmethane)
- CBD (Cannabidiol)
- Boswellia

Here at Olive Tree Compounding, we are more than happy to help you discover the right treatment for you!

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