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## A 31-year-old woman with reflex sympathetic dystrophy syndrome (CRPS): Case report

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A case of a 31-year-old woman with complex regional pain syndrome type I (reflex sympathetic dystrophy syndrome) (CRPS) of the left arm is described. Brachial plexus block (BPB) has been cited as a treatment modality for CRPS. This report is based on the retrospective observations of the outcome and effects of axillary brachial plexus block (BPB) in a patient with CRPS. 31-year-old woman suffered from CRPS of the left upper limb after trauma for 5 months. Symptoms over the left upper limb were not alleviated under conventional pharmacological treatment and rehabilitation and severe painful swelling of the left wrist persisted. Axillary BPB with 30 ml Naropaine 0.2% was performed and 12 hours later resulted in significant reduction of pain and improvement of function of the left wrist. Complex regional pain syndrome type I (CRPS I); formerly reflex sympathetic dystrophy) is a syndrome that develops after a trauma affecting the limbs, without obvious peripheral nerve lesion. Its features include pain and related sensory abnormalities, edema, autonomic dysfunction, movement disorder, and trophic changes. Typically, spontaneous pain or allodynia is not limited to the territory of a single peripheral nerve and is disproportionate to the inciting event. Numerous pathophysiologic components of the disease have been identified, including neurogenic inflammation, peripheral and central sensitization, and impaired sympathetic function. We present this case of 31-year-old woman with CRPS of the upper extremity, who was treated with brachial plexus block. The woman was presented to the orthopaedic clinic, declaring that she could not use her left hand and resisted even the touch of anyone who attempted to examine it for the last five months. An orthopaedic consultation was assessed soon after her trauma, and no fracture nor soft tissue damage of the musculoskeletal system could be detected. She had severe pain, edema and limitation of passive flexion of the fingers. The diagnosis of CRPS was confirmed and anti-inflammatory medication started. The patient started a rehabilitation program of passive range of motion exercises, followed by occupational therapy to the left hand. The therapy was not able to diminish significantly her pain and function of the left hand within five months. Axillary BPB with 30 ml Naropaine 0.2% was performed and after 12 hours resulted in significant reduction of pain with gradual improvement of function of left hand. The edema also diminished and a week later the left hand had a perfect recovery. Based on the case reported brachial plexus block seems to have a significant effect. Despite the popularity of brachial plexus block, only few patients and poorly defined outcomes are reported in the literature, substantiating the need of well-designed studies on the effectiveness of the procedure.

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