

Mazurek Aleksandra, Cyboran Katarzyna, Kuc Monika, Machaj Dominik, Machaj Damian. Complex Regional Pain Syndrome - Prevention, diagnosis and treatment. *Journal of Education, Health and Sport*. 2022;12(2):84-88. eISSN 2391-8306. DOI <http://dx.doi.org/10.12775/JEHS.2022.12.02.009> <https://apcz.umk.pl/JEHS/article/view/JEHS.2022.12.02.009> <https://zenodo.org/record/5979566>

The journal has had 40 points in Ministry of Education and Science of Poland parametric evaluation. Annex to the announcement of the Minister of Education and Science of December 21, 2021. No. 32343. Has a Journal's Unique Identifier: 201159. Scientific disciplines assigned: Physical Culture Sciences (Field of Medical sciences and health sciences); Health Sciences (Field of Medical Sciences and Health Sciences).

Punkty Ministerialne z 2019 - aktualny rok 40 punktów. Załącznik do komunikatu Ministra Edukacji i Nauki z dnia 21 grudnia 2021 r. Lp. 32343. Posiada Unikatowy Identyfikator Czasopisma: 201159. Przynależność dyscypliny naukowej: Nauki o kulturze fizycznej (Dziedzina nauk medycznych i nauk o zdrowiu); Nauki o zdrowiu (Dziedzina nauk medycznych i nauk o zdrowiu).

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The authors declare that there is no conflict of interests regarding the publication of this paper.

Received: 26.01.2022. Revised: 26.01.2022. Accepted: 05.02.2022.

Complex Regional Pain Syndrome - Prevention, diagnosis and treatment

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ABSTRACT

CRPS different from other chronic pain conditions by the presence of signs indicating autonomic and inflammatory changes in the area of pain. [4] Otherwise called Sudeck syndrome, it is characterized by pain and swelling of the affected limb, and in the final stage - contractures in the joints. The skin becomes dry and trophically changed. If the cause of the symptoms is known, causal treatment is used, if not - the following attempts are made to treat this syndrome. The pathophysiology of CRPS is unknown, so diagnostic tests are used to rule out a pathology other than Complex Regional Pain Syndrome. The

average age of onset is 42 years. Statistically, women suffer from the disease three times more often than men. [7]

KEY WORDS: CRPS, Complex Regional Pain Syndrome, Sudeck Syndrome

INTRODUCTION AND PURPOSE

Complex Regional Pain Syndrome (CRPS) revealed strong, searing, maceem discolored, misky, purple in color, sweating, swelling of the soft tissues. Pain hypersensitivity is characteristic, usually painless stimuli such as touch or cold are perceived as painful. Skin becomes dry and dilated, trophically altered. It follows restriction of mobility in the joint, builds up muscular dystrophy and progresses to bone decalcification. ABOUT the so-called Sudeck Team (CRPS) there are significantly bigger, disproportionate to the injury. Main and cause of Complex Regional Pain Syndrome is injury-related release of cytokines, central or peripheral allergy, excessive neurogenic inflammation, sympathetic pain and cortical reorganization in response to chronic pain, oxidative stress, genetic or psychological factors. [1][4]

Statistically, this syndrome most often affects the ankle joint, hand and wrist, especially after fractures, contusions or sprains of the joint. It most often affects people aged 30-50. CRPS affects four times more women than men. It is especially common in people with a fracture of the radius. It occurs in approximately 7% of patients after limb fractures, surgery to the limbs, or other injuries. [4]

DESCRIPTION OF THE STATE OF KNOWLEDGE.

The diagnosis of CRPS is symptom-based, as the pathophysiology of this syndrome is not yet fully understood. However, diagnostic tests may be necessary to rule out another disease.

This team was defined by R. Norman Harden by the following clinical criteria:

1. Continuing pain, which is disproportionate to any inciting event
2. Must report at least one symptom in three of the four following categories:
 - a) Sensory: Reports of hyperesthesia and / or allodynia
 - b) Vasomotor: Reports of temperature asymmetry and / or skin color changes and / or skin color asymmetry

c) Sudomotor / Edema: Reports of edema and / or sweating changes and / or sweating asymmetry

d) Motor / Trophic: Reports of decreased range of motion and / or motor dysfunction (weakness, tremor, dystonia) and / or trophic changes (hair, nail, skin)

3. Must display at least one sign at time of evaluation in two or more of the following categories:

a) Sensory: Evidence of hyperalgesia (to pinprick) and / or allodynia (this light touch and / or temperature sensation and / or deep somatic pressure and / or joint movement)

b) Vasomotor: Evidence of temperature asymmetry ($> 1^{\circ} \text{C}$) and / or skin color changes and / or asymmetry

c) Sudomotor / Edema: Evidence of edema and / or sweating changes and / or sweating asymmetry

d) Motor / Trophic: Evidence of decreased range of motion and / or motor dysfunction (weakness, tremor, dystonia) and / or trophic changes (hair, nail, skin)

4. There is no other diagnosis that better explains the signs and symptoms [2]
ABOUT Currently, Sudeck Syndrome is divided into type I and type II based on the absence or presence of clinical symptoms of serious damage to peripheral nerves, e.g. abnormalities in the electromyography (EMG). [4]

Prevention CRPS at orthopedic patients it consists mainly in the quick immobilization of the limb after an injury in a plaster cast with an appropriate pressure level, sufficiently fast mobilization arthritis, effective pain treatment, quick diagnostics of the beginning symptoms of the Sudeck syndrome. It has been demonstrated that accepting vitamin C in dose 0.5 g per day reduces the risk of occurrence in the case of wrist fractures. [3] For prophylaxis, you can also use topical dimethylsulfoxide, orally N-acetylcysteine

Treating CRPS is primarily about treating pain and other symptoms such as swelling. Physiotherapy and occupational therapy (including graded motor imagery - GMI and mirror therapy), bisphosphonates, calcitonin, intravenous ketamine administered, antiepileptic drugs, can also be effective. antidepressants, e.g. duloxetine, free radicals neutralizers, and transdermal lidocaine patches applied to the affected area in the initial phase of treatment, oral corticosteroids, opioid painkillers. Stimulation of the spinal cord was

successful in two-thirds of the patients. Other sources say that therapies should be the foundation functional, and they describe ketamine as an experimental therapy. [6] In the acute phase of CRPS, doses of 30-40 mg of prednisone administered orally for two weeks are effective. [4] Ganglion blockade has not been shown to be of significant effectiveness. There is no evidence that psychological interventions are effective, but the inclusion of CBT is considered beneficial as part of chronic patient care.

CONCLUSIONS

The clinical criteria have been constructed to provide a standardized methodology for the diagnosis of Sudeck Syndrome. Treatment should depend on the cause of the symptoms. However, due to the fact that there is no causal treatment therapy in which corticosteroids, antidepressants, bowahexpandingychdishes, transdermal patches with lidocaine, painkillers, non-steroidal anti-inflammatory drugs, opioids, ganglion blockades, stimulation of the spinal cord, cryotherapy and kinesitherapy and psychotherapy is being used. Misdiagnosis and treatment that comes with it can lead to excessive costs and may delay getting the appropriate treatment. [2] Factors that increase the risk of the Sudeten syndrome include: surgical procedures, tightly applied plaster cast and, long immobilization, repeated injuries, ischemic disease and, hormonal disorders, smoking, depression.

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