

References

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P086-e

Somatosensory rehabilitation: Treatment of a complex regional pain syndrome type II

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Introduction.– The Complex regional pain syndrome (CRPS) presents serious therapeutic difficulties. Two types of this syndrome are known: type I without peripheral nerve lesion and type II with peripheral nerve lesion. Three stages are described: stage one with vasomotor troubles and allodynia, the stage two with hypoesthesia, then, the stage three with decreased range of motion. Here is, a CRPS case with neuropathic pain which was treated with somatosensory rehabilitation.

Observation.– A 64-year-old woman, was suffering from a CRPS type II in first stage in acromioplastia post-surgical of left shoulder in October 2011. The CRPS was diagnosed with Bruehl criteria and a scintigraphy. The somatosensory rehabilitation was started in March 2012. The patient took analgesic pills which did not much relieved the pain. A map of the allodynia enabled to evaluate the intensity of neuropathic pain and identify the reached nerve. This sensitive cartographia was effected with a monofilament 15 g. A painful zone with a personal EVA > 3/10 was delimited. Then, in this territory, the intensity of allodynia was determined with other thinner monofilaments. Here, the reached nerve was the superior branch of lateral skin nerve of the left arm.

The somatosensory rehabilitation consisted in:

- a distant vibrotactile counter stimulation 8 times a day during 1 minute with comfortable stimuli in C8-D1;
- a distant viber counter stimulation realised with Vibralgic at 300 Hz, 0.9 v during less than 1 minute;
- none stimuli on the allodynia territory.

An assisted active range of motion exercise of the left shoulder was effected. The pain was gone, the allodynic territory had decreased to disappear one month later. The patient did not take treatment any longer. The range of motion of shoulder was normal.

Discussion.– The treatment of CRPS must start early with interdisciplinary management. Many treatments have been effected no so successfully and with sometimes severe side effects. New techniques, like mirror therapy or somatosensory rehabilitation could be explored.

Further reading

Spicher CJ, Mathis F, et al. Static mechanical allodynia is a paradoxical painful hypoesthesia: observations derived from neuropathic pain patients treated with somatosensory rehabilitation. *Somatosens Mot RES* 2008;25(1):77–92.

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P087-e

Botulinum toxin type A in piriformis muscle syndrome using electromyography guidance

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Keywords: Toxine botulinique A; Piriformis muscle syndrome; EMG

The action of the toxin botulinum of type A (TBA) on the abnormal hyperactivity of the piriformis muscle in the rest is a hypothesis allowing to

think that the decrease of this hyperactivity, witness of the muscle spasm, comes along with an improvement of the painful of the patients.

Patients and method.– It is the retrospective study which allowed to include patients with piriformis syndrome [2–4], distributed in two groups (neurological G1, not neurological G2).

Method:

- the clinical evaluation [3,4] and the EMG detection: activities of muscular not looseness during the muscular relaxation in the piriforme [3], allowed the inclusion, the absence of hyperactivity excluded the patients;
- the injection of TBA during EMG was realized with location of the muscular activities. A control EMG in 3 months was planned.

Results.– Twenty-five inclusive patients mailed: 17 injections of TBA (7 group 1, 10 group 2), 8 excluded patients.

The modification of the muscle spasm noticed in the EMG by the decrease of the muscular hyperactivity is not correlated in a significant modification of the pain (3/6 months later).

Discussion.– This preliminary study allows to define the electrophysiologic criteria necessary to propose an injection of TBA in the piriformis muscle in the contact of the hyperactive driving plate the clinicals and the electrophysiologic results, to compare them with the previous works [1,2,5].

One prospective study is necessary by including these electrophysiologic criteria during the injection.

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P088-e

Nitrous oxide interest in pain management to gain joint work within the framework of complex regional pain syndrome type I of a case

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Keywords: Equimolar mixture oxygen-nitrous oxide; Regional pain syndrome complex type I; Joint stiffness

Introduction.– Mobilization of a stiff knee in NITROUS within a complex regional pain syndrome type I of a case.

Objectives.– Nitrous oxide interest in pain management for a joint job gain.

Clinical case.– Mrs H.F., 45 years, CRPS type I in the right knee of posttraumatic origin.

Clinical examination.– Diagnostic criteria and severity score CRPS Budapest. At least one symptom in each group is present.

At least one sign in the four groups was found.

Total number of symptoms and signs present: 12/18.

Walk with 2 CA with stiffness in his right knee, independent with ADL in long sick.

Support.– Day hospital with physical therapy at 3 times/week.

Intolerance TT requires dose adjustment (maximum tolerated 10 mg).

Mobilization painful; flexion 70°, extension 0° after 16 weeks.

Making use of nitrous oxide for its analgesic and relaxant [2] and its safe use to maintain the swallowing reflex [1].

After explanation of the gesture, nitrous oxide administration (maxi/5 min, flow 12 L) before mobilization followed by a gentle passive mobilization (flow 12 L, maxi/20 min) with bending posture respecting the no pain.