Does 5% lidocaine medicated plaster control non-responsive localized painful peripheral neuropathies?

Valeria Tugnoli[1], Franco Gemignani[2], Doriana Medici[3], Roberta Pentore[4] e Luisa Motti[5]

1- Direttore UOC di Neurologia D.A.I. Neuroscienze Riabilitazione - Azienda Ospedaliero Universitaria, Ferrara; 2- Neurologia - Azienda Ospedaliero Universitaria, Parma e Poliambulatorio Dalla Rosa Prati, Parma; 3- UO di Neurologia Fidenza - Polo Neurologico Interaziendale di Parma, Fidenza (PR); 4- Clinica Neurologica - Nuovo Ospedale S. Agostino Estense, Modena; 5- Responsabile UOS di Neurofisiologia – AO Arcispedale Santa Maria Nuova IRCCS, Reggio Emilia.

Objectives

Neuropathic pain (NP) is a debilitating condition with a negative impact on patient quality of life. Despite recent progress in the diagnosis and treatment of NP, many patients remain refractory to or intolerant of existing pharmacological treatments. In 60% of patients pain is localized in a circumscribed area defined as 'localized neuropathic pain' (LNP). International guidelines suggest the topical treatment with 5% Lidocaine medicated plaster (LC5) for LNP either alone or combined with systemic drugs, considering its activity on down-regulation of Aδ and C fibers excitability and its extremely favorable safety profile.

Aim of our observational case report series was to evaluate efficacy and tolerability of LC5 in not-responsive painful localized neuropathies (with the exclusion of PHN).

Methods

We collected a series of clinical cases suffering from LNP (NRS baseline ≥ 4), refractory to commonly drugs used for NP: not-responders were defined as patients with less than 30% pain intensity decrease after systemic pharmacological treatments or dropped due to adverse events.

Materials

The painful area was covered with LC5 using one up to three plasters, applied for 12 hours a day. All concomitant chronic analgesic treatments were maintained. The observation period was up to 3 months. In accordance with our clinical practice, pain intensity and allodynia using patients' self-report on a 11-point NRS from 0 to 10, sensory profile evaluation, quality of sleep (4-point scale), DN4 and NPSI scores were collected and considered for the evaluation of effectiveness. All adverse events were registered.

Results:

We report on 17 patients (5M/12F, mean age 64.4 16.1 years) with LNP with mean pain intensity NRS 6.9 1.7. At 30 days the number of responders was 67%. The DN4 and NPSI scores were positive for NP and all patients had the sensory profile evaluation compromised. After 3 months, treatment with LC5 resulted in reduction of pain intensity (NRS -37%, $p<0.01$) and dynamic mechanical allodynia (NRS - 47%) (Figure 1). NPSI score improved ($p<0.01$) as far as the quality of sleep (Figure 2). The percentage of patients with DN4 ≥4 was 88% in basal condition and reduced to 60% and 40% after 30 and 90 days of treatment ($p<0.05$).

The tolerability was good, as only one patient complained burning sensation that required the suspension of LC5 and no other adverse effect was registered.

Figure 1: Pain intensity and dynamic allodynia

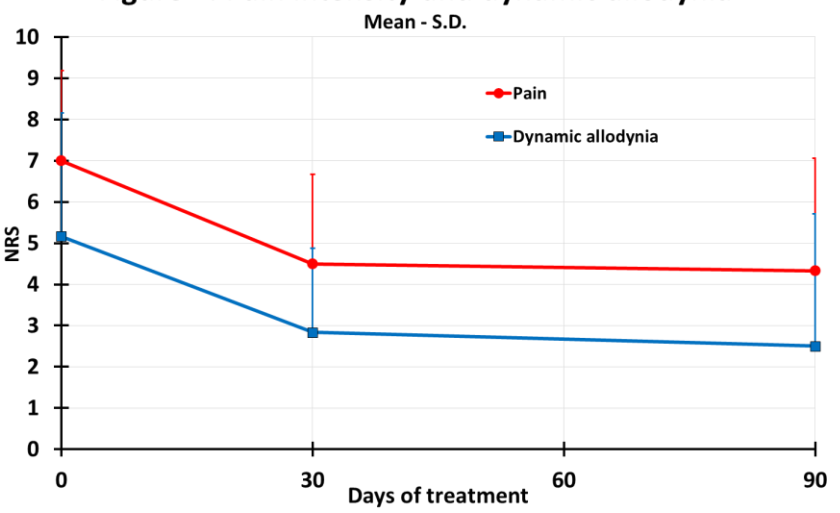
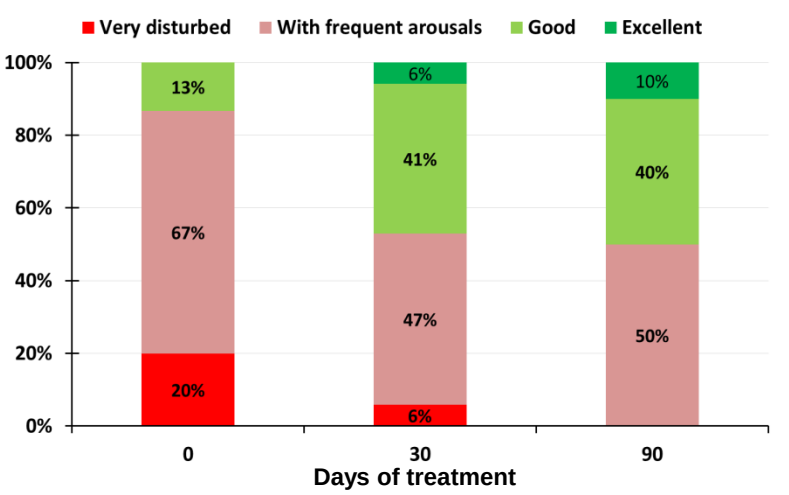


Figure 2: Quality of sleep



Conclusions

In our experience, LC5 demonstrated to be a useful add-on therapy in patient with peripheral and localized neuropathies not-responsive to systemic treatment.

LC5 may be an effective and well-tolerated treatment option for those patients who do not respond or tolerate other therapies. Future randomized controlled studies should better address this issue.

References

Mick G ET AL. CMRO 2012; 28 (6): 937-951

Finnerup NB et Al., Lancet Neurol 2015; 162–73

Sin

XLVII CONGRESSO NAZIONALE
22-25 OTTOBRE 2016 – VENEZIA

WebPoster