

Randomised study Comparing The Effect Of Duloxetine Versus Lacosamide For The Chemotherapy Induced Peripheral Neuropathy

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Abstract

Neuropathy is a major dose-limiting toxicity of many chemotherapeutic regimens. Among the various types of neuropathies seen in cancer patients, chemotherapy-induced peripheral neuropathy (CIPN) is the most widely reported and has been the focus of research efforts. For these reasons, much of the panel discussion and conclusions is focused on CIPN.

The aim of this study was:

To study the impact of Duloxetine v/s Lacosamide on painful chemotherapy induced peripheral neuropathy.

Materials & methods:-

This was a prospective clinical study that included 80 patients, who were allocated to two different drugs randomly in order to match the two groups of patients with the help of computer generated numbers. Eligible patients were randomized using a 1:1 allocation ratio to either group A or group B. In this study design, Group A received 60 mg of Duloxetine daily during the treatment period. The Duloxetine was started at 30 mg daily in the first week and then maintained at 60 mg daily dosage. Group B received Lacosamide 200 mg as treatment. Lacosamide was started at 100 mg daily in the first week and increased by 50 mg every week to 200 mg daily dosage. Duration of treatment was 12 weeks in both the groups. After documenting peripheral neuropathy in patients from history, physical examination and NCV testing, various pain scales like, Likerts pain scale, Neuropathic pain scale were used to assess the baseline level of neuropathy and to assess the response to our intervention.

Results:-932 patients received chemotherapy as a part of cancer treatment during our study period. Among the 932 patients, 80 patients (9%) developed chemotherapy induced peripheral neuropathy (CIPN). The primary end point of the study was pain relief and both Duloxetine as well as Lacosamide were found to be effective in the management of chemotherapy induced peripheral neuropathy. If we look at the individual

variables on Neuropathic pain scale, there was marked improvement in dullness, coldness, intensity of surface pain, intensity of deep pain on neuropathic pain scale and 11 points Likerts pain scale with Duloxetine when compared to Lacosamide.

Conclusion:-Chemotherapy induced peripheral neuropathy responded to both the investigational drugs, but the level of response to Duloxetine was more as compared to lacosamide. Duloxetine is a better drug for the treatment of chemotherapy induced peripheral neuropathy, as it has low side-effect profile, better bioavailability, better tolerability and hence better compliance.



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