High Intensity Laser Therapy (HILT) and Its impact on Quality of Life, Opioid Requirements and Pain for patients with refractory Chemotherapy Induced Peripheral Neuropathy, a Case Series

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INTRODUCTION

- Chemotherapy-induced peripheral neuropathy (CIPN) is a common, dose limiting side effect of many first line chemotherapeutic agents.[1]
- With increasing cancer survivorship, CIPN is widely expected to serve as a greater detriment to the quality of life of cancer survivors and increase healthcare expenditure.[2]
- Because the pathogenesis of CIPN is not well understood, effective therapies have not been developed.[3] Considering the impact of CIPN and the lack of pharmacologic modalities, alternative treatment options are direly needed.
- Laser therapy is a potential tool that can be utilized in pain management, and there is a growing body of evidence to support its use.[4]

OBJECTIVES

To investigate the effects of HILT in pain reduction, opioid requirement, functionality, and quality of life in patients with chemotherapy-induced neuropathic pain.

METHODS

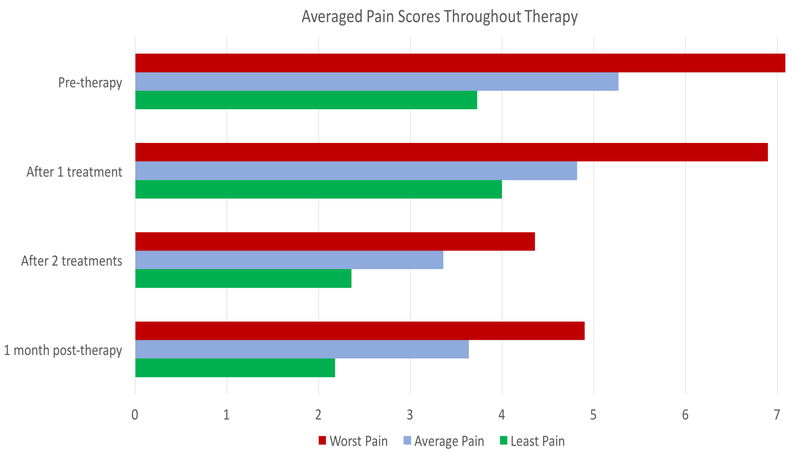
This is a retrospective case series investigating the change in pain measures after the administration of high-intensity laser therapy with the Curewave Lasers, LLC to affected areas of 11 patients with CIPN.

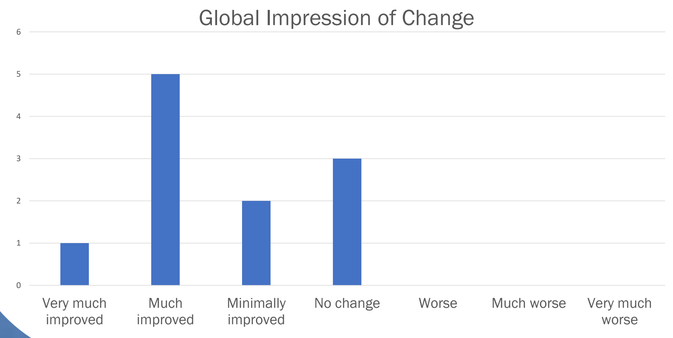
The primary endpoint was the change in pain specific to the areas affected by CIPN, utilizing the numerical rating scale (0 = no pain, 10 = worst pain).

Secondary endpoints include changes to analgesic requirements, cancer related symptoms (modified Edmonton Symptom Assessment Scale), and use of a global impression of change questionnaire to describe change in neuropathy symptoms, pain, and quality of life throughout the therapy.

RESULTS

Mean scores for worst pain, average pain, and least pain of the 11 CIPN patients before therapy, after 1 and 2 HILT treatments, and at the 1-month post-therapy follow-up showed dramatic and sustained improvement.





The majority of CIPN patients reported improvement to their overall pain and quality of life at the end of the follow-up period with no patients reporting worsening.

CONCLUSION

The dramatic improvements in pain scores reported by patients with CIPN who received treatment with HILT suggest that HILT can be applied to effectively treat CIPN-related pain and improve quality of life.

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