Effect of photobiomodulation with low energy lasers in treatment of chemo-radiation induced oral mucositis

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Abstract

Oral mucositis (OM) is a common side effect of chemotherapy or radiotherapy used for treating head and neck cancer. Symptoms usually start 5 to 10 days after chemotherapy or 14 days after radiotherapy and include dryness, halitosis, pain, inflammation and oral mucosa ulceration. Chemotherapy-associated OM can resolve within a few days after completion of chemotherapy, but radiotherapy-associated OM can last for weeks. OM can affect nutritional status (which may need enteral or parental nutrition) and quality of life, and can increase hospital stay. It can also require interruptions or dose reductions in chemotherapy or radiotherapy treatment

Need for study: Many studies showed that LLLT/PBMT(Low level laser therapy/Photobiomodulation)during chemotherapy or radiotherapy is effective in OM treatment .Bensadoun's meta-analysis in 2012, reported 11 randomized placebo-controlled trials with patients treated for HNC, reduced of OM with LLLT/ PBMT, but the used dose should be between 1 to 6 J per point.. Efficacy and the use of LLLT/PBMT are still debated despite the last years growing amount of literature focusing on laser therapy in the mucositis management so, need of study.

Aims & objectives:

To evaluate the Effectiveness of Low Level Laser Therapy treatment for CRT-induced OM, in advanced oral cavity or Oro/hypopharyngeal cancer patients.To grade the mucositis before and after Laser therapy using RTOG toxicity criteria.To assess Pain using Visual analog scale score pre and post laser therapy,Materials and methods, Study design : Prospective single arm study Inclusion criteria: 20 patients of locally advanced histologically proven squamous cell carcinoma of oral cavity, oropharynx or hypopharynx (stage III or IV)with Chemo radiation-induced Grade 2 to Grade 4 Oral Mucositis (RTOG grading) were included in study.

Biography:

Dr. Jyoti Mehta has completed his MD medicine at the age of 25 years from Kharkov national medical university, Ukraine. She is the Resident in Radiation oncology. She has participated more than 7 National conferences .She won Best paper Award in National AROICON 2019.

Speaker Publications:

1. "Certificate of national patent filing title of the invention: improved antibiotic composition for treatment of typhoid and gastro infections caused by salmonella inventors".
2. "Synergism between natural products and fluoroquinolones against staphylococcus aureus strains article".

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