

B-CURE[®] LASER PRO

For an effective treatment of
ORAL MUCOSITIS and **MOUTH ULCERS**
resulting in better recovery and less pain



International guidelines recommend the use of low level laser therapy for treatment of Oral Mucositis

The Multinational Association of Supportive Care in Cancer (MASCC) and the International Society of Oral Oncology (ISOO) have published guidelines that show evidence-based recommendations for low-level laser therapy for treating and preventing Oral Mucositis caused by radiotherapy or chemotherapy.

B-CURE[®]
LASER PRO

HOW DOES B-CURE LASER PRO WORK?

Low-level laser therapy (LLLT) (also known as cold laser) is a laser beam that acts on the surface of the skin and at the same time penetrates deep into the tissue with no heating effect and without damaging the skin. Low-level laser therapy stimulates cell activity, strengthens cell signals and increases the efficiency of the body's natural immune system. It boosts the production of anti-inflammation enzymes, releases endorphins (pain reducing hormones), and increases the formation of collagen and elastin which promotes the healing of wounds and the rehabilitation of the injured area following surgical procedures.

LOW-LEVEL LASER ENERGY

When our body absorbs the laser beam, a number of simultaneous chain reactions occur: blood flow invigoration, cell activity excitation, and intensification of inter-cell communication



Influences the permeability of cell membranes, the penetration and passage of the ions Ca⁺⁺, Na⁺, K⁺, and causes increased nerve activity.

Increases the ATP (Adenosin Triphosphate) levels, activates and stimulates enzymes in the target cells and cAMP molecules which carry inter-cell signals.



Increases the synthesis of endorphins - hormones that relieve pain.

Increases the production of the enzyme S.O.D (Super Oxide Dismutase), which fights inflammation and reduces the pain and damage of free radicals.

Activates immunization chain reactions: arouses the macrophages cells and increases the number of mast cells that help heal wounds.

Accelerates the synthesis of collagen and elastin. Increases the migration of endothelial cells to the wound, thus helping the healing process. Accelerates the synthesis of keratinocytes which are the main constituent cells in the epidermis.



Result
A reduction in pain level.

Result
Anti-inflammatory activity.

Result
Accelerated healing process in ulcers and wounds.

Result
Wound healing, skin regeneration activity.



COMPREHENSIVE TREATMENT FOR ULCERS, WOUNDS, PAIN, INFLAMMATIONS AND ORTHOPEDIC CONDITIONS

B-CURE LASER BENEFITS

Efficient and speedy treatment:

- Helps reduce pain and swelling
- Shortens recovery time
- Effective for treatment of both acute and chronic wounds and inflammations

Clinically proven

- Over 2000 studies conducted over time prove laser technology to be effective in treating wounds, inflammation, pain, muscle and bone problems
- The use of low-level laser therapy for both prevention and treatment of oral mucositis has been proven in numerous double-blind clinical trials

Natural and safe to use for all ages

- Natural, non-invasive treatment
- Extensive research done in recent decades proves that low-level laser therapy (LLLT) is totally safe to use, does not produce adverse effects, does not cause any damage and poses no risk of overuse

For home use

- Easy and safe to use on a daily basis, in the clinic or at home
- The most advanced technology is packed into a powerful, lightweight portable device. This provides depth of penetration and effectiveness of treatment available until now only through the use of heavy, stationary equipment

Ease of Use

- Use of the device is simple and easy and does not require any specific knowledge or skills nor protective goggles
- Place the device gently on the treated area, set treatment time as recommended in the treatment protocol in the brochure and the device is ready to start (use plastic wrap for hygienic purposes)

Global Recognition

The Multinational Association of Supportive Care in Cancer (MASCC), the International Society of Oral Oncology (ISOO) and the National Institute for Health and Care Excellence in the UK (NICE) have published guidelines that show evidence-based recommendations for low-level laser therapy for treating and preventing Oral Mucositis caused by radiotherapy or chemotherapy

RECOMMENDED PROTOCOL *

Extra-oral: (total 4 appl. 3 min. each):

- Apply on each cheek (cutaneous surface corresponding to the buccal mucosae), on each lip.

Bilateral Cervical Lymphatic Chain: (total 6 appl. 1 min. each):

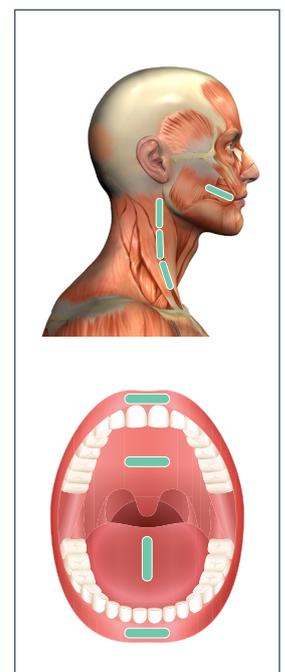
- Apply on cervical lymphatic chain for 1 min. X 3 adjacent application sites.

Intra-oral:

- For prevention (2 min. each) – treat each of the at-risk mucosal surfaces. Such as on both sides of tongue (upper and lower), palate etc.
- For therapy (total 3 min. each) – application sites vary depending upon the location of the oral mucositis lesion.

Protocol Duration: (Chemotherapy and Radiotherapy):

- Prophylactic – Start treatment the 1st day of radiotherapy/chemotherapy or prior to therapy, and continue during all days of radiotherapy/chemotherapy.
- Therapeutic – Daily treatments until symptoms improve, continue using the prophylactic protocol during the remaining days of radiotherapy/chemotherapy.



**Modified from Zecha et al. to adjust to B-Cure Laser parameters: Low-level laser therapy/ photobiomodulation in the management of side effects of chemoradiation therapy in the head and neck cancer: part 2: proposed applications and treatment protocols. Support Care Cancer / June 2016*

B-CURE LASER DENTAL PRO TECHNOLOGY FOR PREVENTION AND TREATMENT OF PERI-IMPLANT MUCOSITIS

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The use of B-Cure Laser in prevention and treatment regimens before and after Dental Implantation significantly reduces the frequency and intensity of the pain symptoms and oral mucosal postoperative hematomas in comparison with the sham laser group

Abstract:

Oral mucositis (OM) is the severe inflammation, lesioning and ulceration of the epithelia, accompanied by bleeding and intensive pain. OM is a common complication of dental implantation. Low-level laser therapy (LLLT) has been found to enhance the repair and healing of epithelia. The aim of this study was to evaluate the effectiveness of preventive and treatment use of LLLT (B-Cure Laser Dental Pro) in the patients who have undergone dental implantation. Simple blind randomized prospective one-center comparative placebo.

Background:

In recent years, dental implants confidently retain the status of a leading trend in modern dentistry, making a serious alternative to the traditional techniques of fixed and removable prosthetics of dental defects, providing high aesthetic and functional results and improving the quality of life of the dental patient. However, the possibility of early and late postoperative complications of dental implantation (DI) did not entirely eliminate and may reduce the success of implant treatment, and therefore it requires adequate prevention, early detection and correction. For the prevention and treatment of inflammatory and sensory-paresthetic complications of DI low-level laser therapy (LLLT) having multifactorial local and systemic effects on the patient is reasonably used.

Materials and Methods:

Single-blind randomized prospective single-center comparative placebo-controlled clinical trial to study the efficacy of LLLT by defocused beam of B-Cure Laser Dental Pro device in the complex events of the surgical phase of DI in prosthetic treatment of patients with partial edentulism was held in the period from June to October 2016.

30 patients (13 men and 17 women aged 28 to 57 years) with included defects of tooth alignment of various location and extent, with indications and intentions for prosthetic treatment with the use of DI. Monitoring groups for the comparative placebo-controlled trial were formed by the method of restricted randomization: the laser group —LG, the patients in the complex of dental implantation received “active” LLLT, generating the corresponding laser radiation by B-Cure Laser Dental Pro device, and the placebo group - PG, the patients received “inactive” placebo B-Cure Laser Dental Pro device with an identical exterior design and handling characteristics, simulating the generation of LLLT and with specific, understandable only by the dentist encoding. The patients of LG used a portable laser therapeutic dental devices B-Cure Laser Dental Pro (Good Energies®, Israel)—Ga-Al-As diode laser generated infrared laser radiation (wavelength—808 nm, power—250 mW, pulse frequency—14 kHz) with unfocused beam 4.5 cm u 1.0 cm with a power density of 14.4 J/min at the peak (3.2J/cm² per minute). The device has the necessary international certificates (CE 0120—Medical Device), approved for the use in the field of healthcare. At the baseline (T0), on the 2–3 (T2-3), 5–7 (T5-7), 10–14 (T10-14) days and 3 months (T90) after the operation of DI the structure, the frequency and severity of complications in early and late postoperative period were analyzed in the patients.

The complex of LLLT using B-Cure Laser Dental Pro technology was carried out in “preventive” (at preoperative stage) and in “treatment mode” (at postoperative period) modes. LLLT in “preventive mode” were conducted

by a trained dentist in the dental office using contact, stable technique, transcutaneously in the projection of dentoalveolar segments corresponding to the DI installation location; a course of 2-3 procedures daily, with a duration of 8min. LLLT in the “treatment mode” was carried out by a trained patient at home on the next day after the operation of DI by the following method: contact, stable area of irradiation (4.5 cm²) of the skin in the projection of the dentoalveolar segment(s) corresponding to the area of DI. The sessions of laser therapy (2) were carried out after the operation on a daily basis, lasting for 8 min (total exposure time—16 min.), the course—7–10 days. Optional LLLT was carried out by the patient at the stage of gingival formation using contact, stable technique, transcutaneously in the projection of DI: daily, duration of the procedure—8 min, treatment course—3–5.

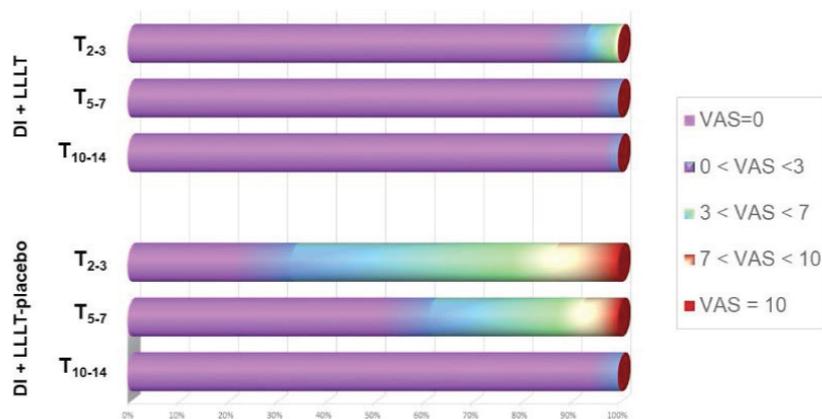


FIGURE 1. The magnitude of pain (VAS scores) and the restructuring of the pain symptom in patients of compared groups in postoperative period of dental implantation stages (T2-3–T10-14)

Results:

Two thirds (66.7%) of the patients in PG noted local inflammation (swelling, redness) in the area of implantation, mostly slightly or moderately expressed. The symptoms of local, mainly slight, inflammation, in periimplantation area were revealed (Fig.2) only in 20.0% of the patients at T2-3, i.e. 3.3 times less than in PG. The frequency of occurrence of oral mucosal postoperative hematomas on T2-3 in the patients of PG was significantly ($p < 0.05$) higher than in the patients of LG, (33.3% versus 13.3%, respectively), including the vast, exciting area of 1-2 jaw segments and adjacent areas of oral mucosa and lips (Fig. 3), often continuing for 5 days after surgery. On T2-3 in the absolute majority of PG patients mouth opening was restricted in comparison with the initial values (29.32 ± 4.40 mm versus 45.50 ± 6.22 mm; $p < 0.05$).

Conclusion:

The results of the study are consistent with the known data that dental implantation in some cases can create problem situations for the doctor and the patient, manifested a steady and severe pain symptom, orofacial swelling, etc.

The use of original LLLT techniques in prevention and treatment regimens before and after DI significantly (in 3.5 times) reduces the frequency and intensity of the pain symptom in the first days after the installation of endosseous implants, promotes earlier and more complete relief without additional analgesics within the first 5 days of the postoperative period in comparison with placebo-laser therapy.

The inclusion of LLLT in DI complex by 3.3– 3.7 times reduces the frequency, duration and intensity of local edema-inflammation in preimplantation area and edema of soft tissues, prevents the development of clinical functional and aesthetic disorders, associated with limitation of mouth opening throughout the surgical stage of DI. The data confirms the information that in some patients early postoperative DI may be accompanied by pronounced physical and psychological discomfort, pain symptom, functional and aesthetic disorders, manifested by a decrease in dental dimensions of quality of life. Effective relief of swelling pain and sensory-paresthetic symptoms as well as associated aesthetic, functional and psychological disorders on the background of LLLT allows minimizing subjective feelings of reduced quality of life in the early postoperative period.

TREATMENT OF ORAL MUCOSITIS WITH A HOME-USE PHOTOBIO-MODULATION DEVICE: A CASE SERIES

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Aim:

Oral Mucositis (OM) is a common painful and debilitating side-effect of chemotherapy and radiotherapy. It requires treatment with analgesics, frequently impairs the ability for food intake, and potentially prevents completion of the full cancer treatment regimen. According to international guidelines, photobiomodulation (PBM), also known as low-level laser therapy, is recommended as a favorable intervention to be used for OM prevention and/or treatment. In the following case series, we present 4 cases treated with a home-use PBM device.

Method:

The 4 cases reported here (1:3 male:female, 55-71 yo) all suffered from OM (WHO grade 3 or 4) as a result of various etiologies. The PBM treatment (808nm, 250mW peak power, 15KHz, 5J/min, ray size 4.5×1.0cm²) was self-applied intra-orally over the tongue and inner epithelial surface of the lips, and extra-orally on the cutaneous surface corresponding to the buccal mucosa, and cervical lymph nodes. Treatment duration was 18-30 minutes.

Results / discussion:

Pain decreased after a single treatment and significant improvement with ability to ingest soft food in up to 3 days. One of the patients that stopped chemotherapy in view of severe OM, but resumed treatment after a single PBM session and continued using the device successfully for prophylaxis. In agreement with the official guidelines, PBM was found to have favorable effects on severe OM with no adverse effects, while standard care had only limited effect.

Conclusion:

The home-use PBM device* may be an important instrument for management of OM. The treatment is self-applied, thereby encouraging patient's involvement in own care, while requiring minimal staff involvement.

*B-Cure Laser PBM device

B-CURE LASER: EVALUATION OF THE EFFICACY OF A NEW LOW-LEVEL LASER THERAPY HOME PROTOCOL IN THE TREATMENT OF JOINT-RELATED PAIN (TMJD): A RANDOMIZED, DOUBLE-BLIND, PLACEBO-CONTROLLED CLINICAL TRIAL

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Department of Oral and Maxillo Facial Sciences | Sapienza University of Rome, Italy

Results of a randomized, double blind, placebo controlled clinical trial conducted on 90 patients

B-Cure Laser's efficacy is almost equivalent to the conventional drugs therapy

Objectives:

This study analyzed a home, low-level laser therapy (LLLT) protocol to manage temporomandibular joint disorders (TMJDs)-related pain.

Methods:

Ninety TMJD patients (12M, 78F) between 18 and 73 years were randomly subdivided into three groups. Study group (SG) received 1-week home protocol LLLT by B-cure Dental Pro: 808 nm, 5 J/min, 250 mW, 15 KHz for 8', 40 J each, over pain area, twice daily. Placebo group (PG) followed the same protocol using sham devices. Drugs group (DG) received conventional drugs. Pain was evaluated by visual analog scale (VAS) before and after therapy.

Results:

An analysis of variance (One-Way ANOVA) was performed to compare the mean pain decrease in SG, DG, and PG patients between T0 and T1. Results indicated that the effect of the treatment was significant ($F(2,83)=4.882$; $p = .010$). Post-hoc analysis (Bonferroni test) showed that the mean decrease in pain in the **PG group was significantly lower than both SG ($p < .05$) and DG ($p < .05$)**. No difference was found between the SG and DG groups ($p = 1.000$) (Table 5). In the SG, a pain reduction between T0 to T1, of a mean of 34 VAS points per patient was registered. Additionally, in the PG, a mean pain decrease of 25.6 points was found. Finally, in the DG, a mean reduction of pain of 35.3 points was noted per patient. **This preliminary evaluation showed that LLLT and drug therapy have almost the same efficacy in the treatment of pain related to TMJDs (Table 4).**

Table 4. Mean VAS reduction between T0 and T1 in the three groups.

| | N | Mean | Standard deviation |
|-------|----|-------|--------------------|
| SG | 29 | 35.17 | 22.139 |
| PG | 28 | 22.14 | 16.635 |
| DG | 29 | 36.55 | 18.181 |
| Total | 86 | 31.40 | 20.010 |

VAS: Visual analog scale; T0: Immediately before treatment; T1: After treatment; N: Number of subjects; SG: Study group; PG: Placebo group; DG: Drugs group.

Table 5. Bonferroni test shows that the values in PG were lower than both SG and DG.

| (I) Group | (J) Group | Means difference (I-J) | Standard error | Significance |
|-----------|-----------|------------------------|----------------|--------------|
| SG | PG | 13.030* | 5.075 | .036 |
| | DG | -1.379 | 5.030 | 1.000 |
| PG | SG | -13.030* | 5.075 | .036 |
| | DG | -14.409* | 5.075 | .017 |
| DG | SG | 29 | 5.030 | 1.000 |
| | PG | | 5.075 | .017 |

SG: Study group; PG: Placebo group; DG: Drugs group.

Conclusion:

According to the results obtained, it is possible to answer positively to the main query of the study, since the pain reduction obtained in the SG was significant. Concerning the answers to the two secondary queries, it is possible to affirm that the efficacy of the laser treatment is very promising, **being at the same level of the one registered in the DG**. The study supports the efficacy of home LLLT management of TMJD related pain.

HEALING OF CHRONIC DIABETIC FOOT ULCERS USING B-CURE LASER PRO - LOW LEVEL LASER THERAPY (LLLT)

(Submission in process)

Haze A., Elishoov O., Liebergall M.

The Division of Orthopedics, Hadassah Medical Center, Jerusalem, Israel

12 weeks of daily B-Cure Laser Pro treatments significantly decreased wound size in patients with diabetic foot ulcers compared to the sham laser group

Background:

Diabetes mellitus (DM) is a significant health concern affecting hundreds of millions of individuals worldwide. A diabetic person has a 25% lifetime risk of developing a diabetic foot ulcer (DFU), which may lead to limb amputation and risk patient's life. The cellular and molecular effects of LLLT on wound healing were studied, though solid clinical effects on DFU healing is still lacking. The current study is a double blinded randomized trial evaluating the effects of a home use LLLT device (B-Cure Laser Pro, Israel) on DFU healing.

Methods:

19 patients, suffering for at least 6 weeks from a DFU, sized 3-37.5cm² were recruited. Patients were randomly assigned to daily treatments of LLLT (808nm, 8 minutes, 9 J/cm²) (experimental group, n=10) or sham (control group, n=9) in addition to standard of care dressing. The treatment period lasted 12 weeks or until wound closure.

Results:

Initial wound sizes were 11.2±11.1cm² in the control group and 12.4±9.2 in the experimental group. At the endpoint wound sizes were 6.5±7.3 and 1.5±2.4. Using 2-sided exact Wilcoxon Sign Ranks test no significant difference was found between the initial wound sizes of the groups (p=0.92) and also between the initial and final wound sizes in the control group (p=0.301). Significant difference was found between the initial and final wound sizes in the experimental group (p=0.002). Direct comparison of percentage of wound closure between the experimental and control groups showed a significant healing effect of laser over sham (p=0.033). 7 of 10 active patients vs 1 of 9 placebo patients had >90% wound closure (p=0.019 by Fisher Exact Probability Test).

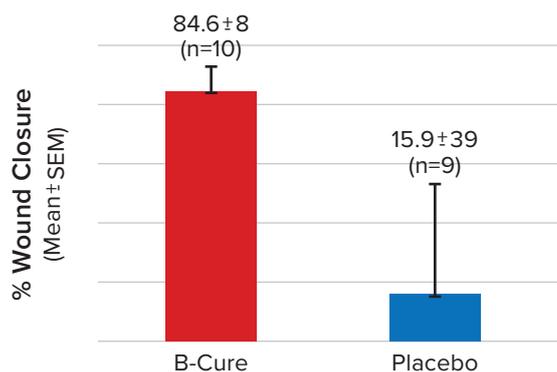


Figure 1: %Wound Closure – B-Cure vs Placebo

Table 2: improvement > 90%

| Improvement | Active | Placebo |
|---------------|---------|---------|
| Less than 90% | 3 (30%) | 8 (89%) |
| More than 90% | 7 (70%) | 1 (11%) |
| Total | 10 | 9 |

Placebo vs Active baseline: P=0.019 by Fisher Exact Probability Test

Conclusions:

In spite of the relatively small groups the results show that B-Cure Laser Pro may be beneficial as an adjunctive treatment to standard care for DFU healing. Further studies are warranted to strengthen our conclusions.

SELF USE LOW-LEVEL LASER THERAPY TO ACCELERATE HEALING OF HARD TO HEAL WOUNDS WITH VARIOUS ETIOLOGIES

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Aim:

Evaluation of consumer home-use Low-level laser therapy or Photobiomodulation (PBM) as an as an adjuvant to standard treatment to accelerate healing of acute and/or chronic wounds PBM device*.

Method:

Patient were recruited from clinic: 16 cases (11:5 male:female, 43-84 years old) included 3 abdominal wounds, 5 diabetic foot ulcers (DFU), 2 dehisced limb incisions, 3 Venous leg ulcers, and 3 complicated wounds, were treated from May to November 2018. The PBM treatment (808nm, 250mW peak power, 15KHz, 5J/min, ray size 4.5x1.0cm²) was applied over the wound bed, wound margins, and over nearby lymph nodes by the patients themselves.

Results / discussion:

The abdominal wounds achieved complete epithelialization after 5-6 treatments at the clinic over a period of 9-21 days. Three of the DFUs closed within 2 weeks after 4-6 treatments and the other 2 achieved 50% size decrease in 1 week. 3 complicated wounds were improved or completely resolved with significant pain alleviation between one to 3 days. Finally, out of 3 recurrent extremely painful not responding to combination pain medication venous ulcer pain resolved in all within a week treatment however accelerated healing was less significant than in other ulcer types.

Conclusion:

Hard-to-heal wounds are a burden for patients, caregivers, and costly for the healthcare system. Based on our previous experience and the cases presented here, self-applied PBM, led to accelerate healing and rapid pain alleviation over standard care alone. Moreover, the treatment encouraged patient's involvement in own care.

*B-Cure Laser PBM device

B-CURE LASER: LOW LEVEL LASER THERAPY PREVENTS COMPLICATIONS POST LAMINECTOMY *(Submission in process)*

Holanda V., Pereira B., Ferreira K., Greiffo F., Oliveira J., Franca C., Silva D., Ontaneda M., Pinto N., Chavantes C. | Beneficência of Sao Paulo Hospital, Nove de Julho University, Sao Paulo, Brazil

B-Cure Laser, in comparison with the placebo group, stimulates better wound healing, significantly reduces pain level, inflammation and drainage output

Background:

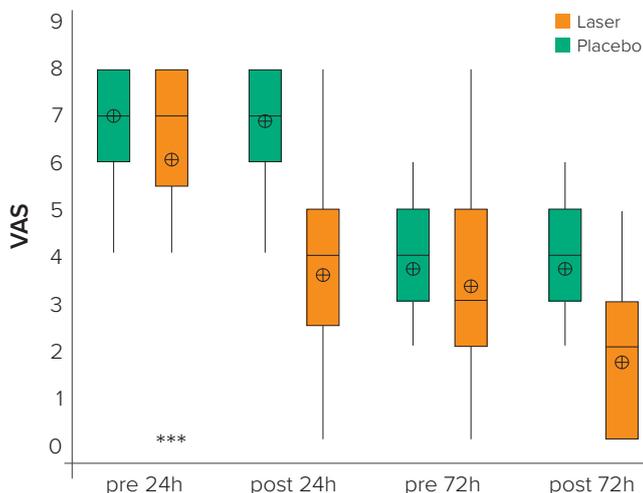
Every year, over one million individuals worldwide are submitted to laminectomies, with a rate failure higher than 40%. Post laminectomy epidural adhesion is implicated as a main cause of “failed back surgery syndrome” and associated with high risk of complications during the revision surgery. The objectives of this project are to delineate and evaluate the LLLT effects in spinal surgery.

Study:

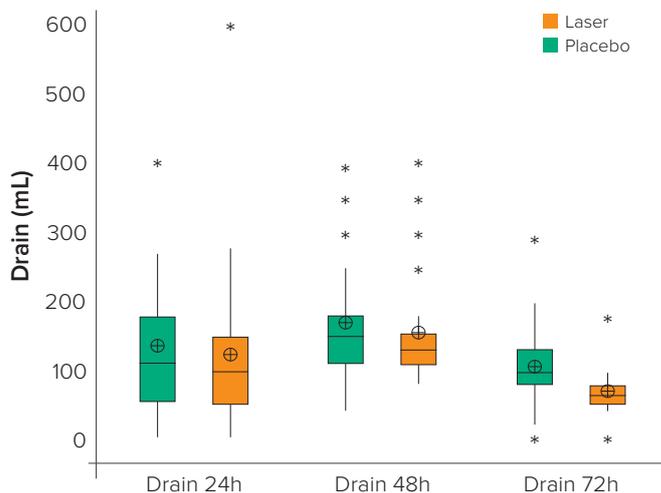
A prospective randomized, controlled trial with a total of 46 patients, undergoing laminectomy, were divided into 2 groups. In 23 randomized patients, LLLT (B-Cure Laser, GOOD ENERGIES, Israel), diode laser-semiconductor Gallium Arsenide and Aluminum (GaAlAs) was applied during surgery (808 nm, total exposure time of 240 seconds, energy density of 2.48 J/cm², average power of 62.5mW, spot area of 3,876cm²), for 60 seconds on the laminectomy site, 60 seconds in the subcutaneous tissue and 120 seconds over the wound. In addition, LLLT was applied on the wound site 24 hours and 72 hours after surgery*. In the second group, 23 patients were induced to think they were getting the same treatment, although LLLT was not operating.

Results:

The results showed a decrease of temperature, pain relief and accelerated healing in laser group, LLLT facilitates wound healing, due to a more rapid resolution of acute inflammation, as suggested by the CRP biggest drop from second to fifth postoperative day, and the proliferation phase of healing to begin earlier demonstrated statistically significant values by more rapid fall in the laser group of CK, suggesting that these markers may guide LLLT treatments.



*Graph 8. Visual Analogue Scale (VAS). (24h p = 0.0001) (72h p = 0.0001).



*Graph 9. Evaluation of drain exudate. (24h p = 0.421) (48h p = 0.332) (72h p = 0.004).

Conclusion:

In conclusion, we demonstrate that only three applications of LLLT stimulate better wound healing, reduce inflammation in the wound bed, decrease drainage output and assist in postoperative analgesia in spinal surgery.

*<https://bibliotecatede.uninove.br/bitstream/tede/1148/2/Vanessa%20Milanesi%20Holanda.pdf>

B-CURE LASER: THE “AT-HOME LLLT” IN TEMPORO-MANDIBULAR DISORDERS PAIN CONTROL: A PILOT STUDY

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Department of Biomedical, Biotechnological and Translational Sciences (S.Bi.Bi.T.), University of Parma, Italy

B-Cure Laser group experienced a 50% decrease in pain level within two weeks compared to 8% in the sham laser group

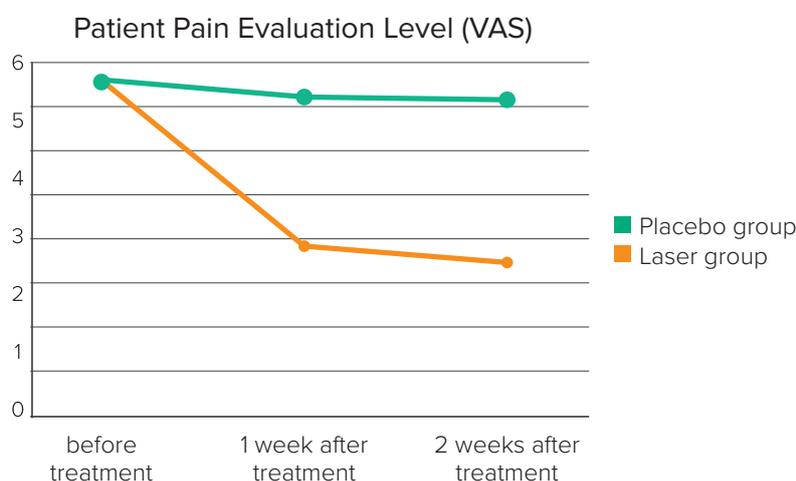
Objectives:

The Temporomandibular Disorders (TMD) are a set of dysfunctional patterns concerning the temporomandibular joints (TMJ) and the masticatory muscles; its main symptom is pain, probably caused by inflammatory changes in the synovial membrane, alterations in the bone marrow of the mandibular condyle and impingement and compression. The aim of this preliminary study was to investigate the effectiveness in the TMD pain reduction of a new laser device recently proposed by the market that, due to its reduced dimensions and to be a class I laser according the ANSI classification, may be used at home by the patient himself.

Materials and methods:

Twenty-four patients with TMD were randomly selected: the inclusion criteria for the sample was the diagnosis of mono- or bi-lateral TMD, with acute pain restricted to the joint area, associated with the absence of any muscle tenderness during palpation. The patients were randomly assigned to two groups: Group 1 (12 patients): patients receiving real LLLT (experimental group). Group 2 (12 patients): patients receiving inactive laser (placebo group). The treatment was performed once a day for two weeks with an 808 nm diode laser (B-Cure Laser, Good Energies, Israel), by the patient himself with irradiation of the cutaneous zone corresponding to the TMJ for 15 minutes each side. Each patient was instructed to express its pain in a visual analogue scale (VAS) making a perpendicular line between the two extremes representing the felt pain level. Statistical analysis was realized with GraphPad Instat Software, where $P < 0.05$ was considered significant and $P < 0.01$ very significant.

Results:



The patient’s pain evaluation was expressed in the two study groups before the treatment, 1 week and two weeks after the treatment. The differences between the two groups result extremely significant with $p < 0.0001$ for the comparison of VAS value after 1 and 2 weeks

Conclusion:

This study, even if it may be considered such a pilot study, investigated a new way to control the pain in the temporomandibular diseases by an at home self administered laser device. Results are encouraging but they will have to be confirmed by greater studies.

“The secret of change is to focus all of your energy not on fighting the old, but on building the new”

- Socrates



| | | |
|------------------------------------|---|---|
| max 250 mW at peak 808 nm | International breakthrough Israeli Patent + IP | Patented electro optic mechanism emits a fully coherent most efficient pulsed beam |
| | - 4.5 cm ² of coherent - therapy - | |

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