

CURRICULUM VITAE

Nasrin Zand, MD

Personal specifications:

Date of Birth: March 12, 1965

Nationality: Iranian

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Assistant Professor of Dermatology, Department of Medical Laser, Medical Laser Research Center, Yara institute. Academic Center for Education, Culture and Research (ACECR).

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EDUCATIONAL BACKGROUND:

1993: Medical Doctoral Degree (Including 18 months of Internship): Faculty of Medicine, Tehran University of Medical Sciences (TUMS), Tehran, Iran (second rank)

Medical Doctoral Degree: Liposomal drug delivery systems

1997: Iranian National Board Certification in Dermatology: Faculty of Medicine, Tehran University of Medical Sciences (TUMS), Tehran, Iran, and (ranking fourth among all the graduates of the country).

Special Degree in Dermatology: Evaluating the efficacy of Ag-NOR staining for the purpose of diagnosing melanocytic skin tumors (1996-1998)

Essays, Works and Scientific/Research Contributions:

Research projects:

1. Evaluating the pain relieving effects of single session of Non-Thermal CO₂ Laser Therapy (NTCLT) in post chemotherapy oral mucositis.(Director of the project, grant from INSE, in progress)
2. Temperature assessment of Non-Thermal CO₂ Laser Therapy (NTCLT) according to different exposure times (in vitro study) (Director of the project, with collaboration of Sharif University of Technology, finished)
3. Evaluating the analgesic effects of single session of Non-ablative CO₂ Laser Therapy (NACLt) in oral lesions of pemphigus vulgaris. (☉Director of the project, finished)
4. Evaluating the efficacy of CO₂ laser radiation in relieving pain and promoting wound healing in recurrent aphthous stomatitis.(☉Director of the project, finished)
5. Prophylactic effects of 585 nm pulsed-dye laser (PDL) to prevent the surgical scars following bilateral reduction mammoplasty. (☉Director of the project, finished)
6. The induced heat modeling due to Nd: YAG laser irradiation in nerve using COMSOL software(collaborator of the project, finished)
7. Efficacy of low level laser (685nm) therapy in preventing the radiation- induced oral mucositis and xerostomia in patients with head and neck cancer. (collaborator of the project, finished)
8. A randomized clinical trial on the effect of low-level laser therapy on chronic diabetic foot wound healing. (collaborator of the project, finished)
9. Photo-heme mediated photodynamic therapy of head and neck basal cell carcinoma. (collaborator of the project, finished)

Publications:

A. Books:

1. **Zand N**, Chapter 16: Non-Thermal, Non-Ablative CO₂ Laser Therapy (NACLt): A new approach to relieve pain in some painful oral diseases,in CO₂ laser-optimization and application, D.C. Dumitras, Editor. 2012, InTech-Open Access Publisher. p. 387-414.
2. Common questions in breast cancer, Skin problems chapter.

B. Journals:

1. **Zand, N., Mansouri, P.,** Rezaee Khiabanloo, S., Fateh, M., Ataie Fashtami, L., Safaee Naraghi, Z., & Shirkavand, A. (2020). The Immediate Pain-Relieving Effects of Non-Thermal CO2 Laser Therapy on genital ulcers of Behcet's disease: A Case Report. *Journal of Lasers in Medical Sciences*,2020; 11(1), 108-111.
2. **Zand N,** Ataie-Fashtami L, Shirkavand A. Photobiomodulation as a potential adjunctive therapeutic approach for management of COVID-19. *Lasers in medicine. Covid-19 Supp.*2020
3. **Zand N,** Mahdavi-Mazdeh M. The Immediate analgesic effects of Non-Thermal CO2 Laser Therapy (NTCLT) on oral aphthous like ulcers of a kidney-transplanted patient with leukopenia. *Lasers in medicine. Supp.*2020
4. **Zand N,** Ataie-Fashtami L. Letter regarding "Lichen planus pigmentosus successfully treated with conventional CO2 laser resurfacing". *Iranian Journal of Dermatology.* June 2012
5. **Zand N,** Mansouri P, Fateh M, Ataie-Fashtami L, Shirkavand A, A new approach to relieve pain in oral lesions of pemphigus vulgaris using the non-ablative, Non-Thermal, CO2 Laser Therapy (NTCLT): preliminary results. *J lasers med Sci.* Winter 2017; 8(1): 7-12
6. **Zand N,** Ataie-Fashtami L. Letter Regarding "Fissured Tongue: A Case Report". *Open Access Journal of Dental Sciences.* 2018 Oct. 3(4).
7. **Zand N,** Shirkavand A. Letter regarding "Effect of laser on pain relief and wound healing of recurrent aphthous stomatitis: a systematic review". *Lasers Med Sci.* 2017 Aug 12.
8. **Zand N,** Ataie-Fashtami L, Fateh M, Djavid GE, , Fatemi S, Shirkavand A. Promoting wound healing in minor recurrent aphthous stomatitis by non thermal, Non-Ablative CO2 Laser Therapy. *Photomed Laser Surg.* 2012; 30(12): p. 719-23.
9. **Zand N,** Ataie-Fashtami L, Djavid GE, Fateh M, Alinaghizadeh M, Fatemi S, Arbabi-Kalati F. Relieving pain in minor recurrent aphthous stomatitis by single session of non-thermal carbon dioxide laser radiation. *Lasers Med Sci.* 2009, 24:515-20.

10. **Zand N**, Mansouri P, Ataie-Fashtami L, Fateh M, Esmaeeli Djavid Gh, Alinaghizadeh M. NACLTL (Non-ablative CO2 laser 10600nm therapy): A new approach to relieve pain in mild to moderate oral mucositis following breast cancer chemotherapy (a pilot study). EJC supplement, EBCC7 2010; 166.
11. Shirkavand A, Mohammadzadeh L, **Zand N**. The induced heat modeling due to Nd: YAG laser irradiation in nerve using COMSOL software. Lasers in medicine.2020
12. Babadi, M., Mohajerani, E., Ataie Fashtami, L., **Zand,N.**, & Shirkavand, A. Quantitative Analysis of Skin Erythema Due to Laser Hair Removal: A Diffusion Optical Spectroscopy Analysis. Journal of Lasers in Medical Sciences,2019, 10(2), 97-103.
13. Soroosh A, Ataie-Fashtami L, **Zand N**, Jalali SB, Shirkavand A. Study the 585 nm Pulsed Dye Laser profilactis efficacy in scar reduction after thyroidectomy. 2018; 15(3): 2-7
14. Babadi M, Mohajerani E, Shirkavand A, Ataie Fashtami L, **Zand N**. study on application of diffuse reflectance spectroscopy in quantitative evaluation of the skin erythema following laser hair removal. Laser in Med. 2017: 14(2): 24-30
15. Seyyedmousavi SM, Hashemi SJ, Rezaie S, Fateh M, Djavid GE, Zibafar E, Morsali F, **Zand N**, Alinaghizadeh MR,Ataie-Fashtami L. Effects of Low-Level Laser Irradiation on the Pathogenicity of Candida albicans: In Vitro and in Vivo Study. Photomedicine and laser surgery 06/2014; 32(6):322-329.
16. Shirkavand A, Ataie-Fashtami L, Sarkar S, Alinaghizadeh MR , Fateh M, **Zand N**, Esmaeeli Djavid G. Thermal damage patterns of diode hair-removal lasers according to various skin types and hair densities and colors: a simulation study. Photomed Laser Surg.2012: 30(7):374-80.
17. Ataie-Fashtami L, Shirkavand A, Sarkar S, Alinaghizadeh M, Hejazi M, Fateh M, Esmaeeli Djavid G, **Zand N**, Reza HM. Simulation of heat distribution and thermal damage patterns of diode hair-removal lasers: An applicable method for optimizing treatment parameters. Photomed Laser Surg. 2011 Mar 21
18. Kaviani A, Djavid GE, Ataie-Fashtami L, Fateh M, Ghodsi M, Salami M, **Zand N**, Kashef N, Larijani B. A randomized clinical trial on the effect of low-level laser therapy on chronic diabetic foot wound healing: a preliminary report. Photomed Laser Surg. 2011 Feb;29(2):109-14. Epub 2011 Jan 9
19. Kaviani A, Ataie Fashtami L, Fateh M, Sheikhbahe N, Ghodsi M, **Zand N**, Djavid GE. Photodynamic therapy of head and neck basal cell carcinoma considering different clinic pathologic features (Clinical trial) Lasers Surg Med 2005; 10: 65-74.

20. **Zand N**, Shirkavand A. Laser Assisted Skin Healing (LASH). Journal of Dermatology and Cosmetic. Winter 2016
21. Shirkavand A, Ataie-Fashtami L, **Zand N**. Importance of laser safety in medical application of lasers. Laser in medicine 2016; 2,3
22. **Zand N**, Fateh M, Ataie-Fashtami L, Djavid GE, Najafi M, Kaviani M. Is prophylactic pulsed-dye laser (PDL) irradiation effective in improving the quality and cosmetic appearance of post reduction mammoplasty incisional lines? Lasers in medicine 2011; 8(2): 27-34.
23. **Zand N**, Ataie-Fashtami L, Fateh M, Mansouri P, Djavid GE, Fatemi S, Alinaghizadeh M. Analgesic effects of single session of Non-Ablative, CO2 Laser Therapy (NACLt) in major aphthous ulcers (A preliminary study). Lasers in medicine 2010; 6(4): 6-12.
24. **Zand N**, Fateh M. Home-use lasers and light sources in dermatology (Hair removal). Laser in medicine. 2010; 6(4): 36-40.
25. Laser safety importance in clinical applications of laser clinics. Shirkavand A, Ataie-Fashtami L, **Zand N**. Laser in medicine. 2016: 13(2,3). 64-71
26. Amozegar F, Esmaeeli Djavid Gh, Haddad P, Fateh M, Kazemian A, Ataie-Fashtami L, **Zand N**, Tabaie S.M. Efficacy of low level laser (685nm) therapy in preventing the radiation- induced oral mucositis and xerostomia in patients with head and neck cancer. Lasers in medicine 2009; 6(1): 12-7.
27. Fateh M, Montazeri A, Shojaeizadeh D, Ataie-Fashtami L, Esmaeeli Djavid Gh, **Zand N**. Low level laser therapy: knowledge, attitude and practice among physicians. Lasers in medicine 2008, 5(1): 12-7.
28. **Zand N**, Ataie-Fashtami L. Skin resurfacing; (ablative lasers). Lasers in medicine, 2003(12).
29. **Zand N**, Ataie-Fashtami L. Skin resurfacing; (Er:YAG laser). Lasers in medicine, 2003(13).
30. **Zand N**, Ataie-Fashtami L. Skin resurfacing; (combined systems and radio-frequency). Lasers in medicine, 2003 (14).
30. **Zand**, Ataie-Fashtami L. Laser treatment of vascular lesions. Lasers in medicine, 2004 (19).

PRESENTATIONS:

1. Non-Thermal CO2 Laser Therapy (NTCLT) A novel approach to relieve pain in painful oral mucosal lesions. International Summer School of Lasers and Biomedical Photonics.Tehran, Iran. Sep 2020
2. The immediate pain relieving effects of Non-Thermal CO2 Laser Therapy (NTCLT) on oral aphthous ulcers of Behcet's disease: a pilot study.The 12th Annual Congress of Iranian Rheumatology Association. Nov 2018
3. The clinical and physical aspects of NTCLT (Non-Thermal CO2 Laser Therapy) as a photobiomodulative pain relieving approach in oral lesions: an update. The 9th World Congress of SOLA 2017 (International Society of Oral Laser Application). April 2017
4. Non-thermal CO2 laser Therapy (NTCLT): A novel approach for immediate pain relief in chemotherapy- induced oral mucositis (COM): the preliminary results. International Tehran Breast Cancer Congress (TBCC9), MCI congress. Tehran, Iran.18-20 October 2017. Award of the best presentation
5. Scalp cooling to survive hair follicles during chemotherapy: a literature review. The 2nd international and 4th national congress of wound healing and tissue repair. Tehran, Iran. October 25-27, 2017
6. Evaluating the effects of Non-Thermal CO2 Laser Therapy (NTCLT) on promoting wound healing of recurrent oral aphthous ulcers: A pilot study. The 3rd international and 5th national congress of wound healing and tissue repair. Tehran, Iran. 2018
7. Non-thermal CO2 laser Therapy (NTCLT): A new approach for immediate pain relief in chemotherapy- induced oral mucositis: the preliminary results. International congress on cancer pain management along with the 4th annual conference on pediatric pain medicine and regional anesthesia and interventional pain management workshop. . Tehran, Iran. 3-5 Feb 2016
8. Non-thermal CO2 laser Therapy (NTCLT): A novel approach for immediate and significant pain relief in some oral mucosal lesions. The 5th Symposium of World Federation of Neurosurgical Societies. The 7th International Neurosurgery Congress. The 1st International Neuroscience. Tehran, Iran. April 2016
9. Laser photobiomodulation in prevention and treatment of radiodermatitis: indications and pitfalls. 1st international wound and tissur repair congress. October 2016

10. Analysis of erythema due to laser hair removal by using diffuse reflectance Analysis of erythema due to laser hair removal by using diffuse reflectance spectroscopy. Babadi M, Ezeddin Mohajerani E, Shirkavand A, Zand N. , Ataie Fashtami L. 23th conference of optics and photonics. Tarbiat Modares University. Tehran, Iran. February 2017
11. Skin diseases of breast. Skin diseases update congress (women's dermatology). Tehran, Iran. August 2015
12. The mechanisms of laser phototherapy in promoting wound healing. The 2nd National congress of wound and tissue repair. Medical Laser Research Center. Tehran, Iran. October 2015.
13. Non-thermal CO2 laser Therapy (NTCLT): A new approach for pain relief in some oral mucosal lesions. The first international Congress of Pain (TUMS) and 12th Scientific Congress of Iranian Pain Society. May 2015
14. New Laser skin welding approaches. Fourteenth Annual Congress of Iranian Society of Dermatology. Medical Laser Research Center. Tehran, Iran. October 2014
15. The pain relieving effects of Non-thermal CO2 laser Therapy (NTCLT) in graft versus host disease (GVHD); a case report. The 3rd National Conference on pain medicine in children. February 2015
16. Non-ablative, CO2 laser Therapy (NACLt) and pain relief in oral mucosal lesions. 5th International Congress of newest research achievements in medical science. Tehran University of medical sciences. 6-10 October 2014.
17. Low intensity laser applications in wound healing (update). Iranian ostomy society conference. October 2014.
18. Laser Assisted Skin Healing (LASH). First National congress of wound and tissue repair. Medical Laser Research Center. September 2014
19. Photobiomodulation update in dermatology. The Iranian society of dermatology conference. Tehran-Iran. August 2014.
20. Non-ablative, CO2 laser Therapy (NACLt): indications and limitations. National Conference on pain medicine in children. February 2014
21. Home-use lasers in skin rejuvenation. Skin diseases update congress (skin& aging). January 2014

22. Non-ablative, CO2 laser Therapy (NACLTL) pain relieving effects on oral mucositis. The first national conference on cancer pain management. September 2013
23. Photobiomodulation News in dermatology. The Iranian society of dermatology conference. 2012
24. Low level laser therapy (laser phototherapy) and its promoting effects on wound healing (update). Wound Care Management conference. Tehran, Iran. January 2013
25. Low intensity laser applications in wound healing (update). Iranian ostomy society conference. August 2013
26. The photobiomodulative effects of high power lasers application in pain relief. Medical laser conference. Tehran, Iran. March 2012
27. The analgesic effect of single session of Non-Ablative CO2 Laser Therapy (NACLTL) in oral aphthous ulcers of behcet's disease: a pilot study. Skin diseases and laser news congress. February 2012
28. Low level laser therapy application in wound healing (update). Ostomy conference. Tehran, Iran 2012
29. Cancer and oral mucositis. Congress of skin and cancer news, Tehran, Iran. Dec 2011.
30. Evaluating the analgesic effects of Non-ablative, CO2 laser Therapy (NACLTL) in oral and genital lesions of Behcet's disease. The Iranian society of dermatology conference, 2012.
31. NACLTL in painful oral mucosal lesions. Laser Iran 2011 congress.
32. Low power lasers in dermatology, Laser Iran 2011 congress.
33. Home- use lasers and low-energy pulsed-light devices in dermatology. Laser Iran 2011 congress
34. Relieving pain aphthous stomatitis through one single session, non-thermal CO2 laser therapy.
35. "Non-ablative, CO2 laser Therapy (NACLTL): A new approach to relieve pain in oral mucosal lesions". The 50th International Annual Congress of the Iranian Dental Association, 2010.
36. "Non-ablative, CO2 laser Therapy (NACLTL): A new approach to relieve pain in oral mucosal lesions" WALT-2010 (World Association for Laser Therapy) congress, Bergen, Norway, September 2010
37. NACLTL (Non-ablative CO2 laser 10600nm therapy): A new approach to relieve pain in mild to moderate oral mucositis following breast cancer chemotherapy (a pilot study). European breast cancer conference (EBCC7). (poster -power point-presentation). March 2010, Barcelona, Spain
38. Evaluating the efficacy of non-thermal CO2 laser therapy (NACLTL) to relieve pain in oral lesions of pemphigus vulgaris. The 29th annual conference of the American society for laser in medicine and surgery (ASLMS), April 2009, Sanfrancisco, USA.

39. Laser photobiomodulation applications in dermatological practice. 2010
40. Home-use lasers and light devices in hirsutism. Continuous Medical Education (CME) for general practitioners. Tehran University of medical sciences. Feb 2011
41. "Low power lasers in dermatology". Continuous Medical Education (CME) for general practitioners. Tehran University of medical sciences. 2009
42. "Treatment of acne vulgaris (update)". Continuous Medical Education (CME) for general practitioners. Tehran University of medical sciences. 2009
43. "Prophylactic effects of 585 nm pulsed-dye laser (PDL) to improve the surgical scars following bilateral reduction mammoplasty (A pilot study)". Lasers applications in surgery conference. Tehran, Iran, Jan 2010.
44. "News in recurrent aphthous stomatitis". Continuous Medical Education (CME) for general practitioners. Tehran university of medical sciences, Feb. 2009
45. "Evaluating the analgesic effect(s) of single session of Non-ablative, CO2 laser Therapy (NACL) in reducing the pain of mild to moderate chemotherapy-induced oral mucositis". The 2nd cancer palliative care congress. Tehran, Iran, April 2009.
46. "Evaluating the analgesic effect(s) of single session of Non-ablative, CO2 laser Therapy (NACL) in painful oral lesions of pemphigus vulgaris". The Iranian society of dermatology conference. August 2009.
47. "Relieving pain and promoting wound healing in recurrent (minor and major) aphthous stomatitis through single session, non-thermal, non ablative CO2 laser therapy". The 1st laser news in dermatology congress, August 2008
48. "Laser applications in Medicine". Continuous Medical Education for General Practitioners, Iranian Medical Council (IMC), November 2004, Tehran, Iran
49. "The efficacy of Ag-NOR staining for diagnosing/detecting melanocytic skin tumors". The 7th International Congress of Dermatology, September 2004 ,Tehran, Iran
50. CO2 laser reduces pain in minor recurrent aphthous stomatitis: A randomized controlled clinical trial. laser Florence 2006 congress. Florence, Italy
51. Relieving pain and promoting wound healing in minor recurrent aphthous stomatitis by a single session, non-thermal CO2 laser irradiation. The 28th annual conference of the American society for laser in medicine and surgery (ASLMS), April 2008 Florida, USA.

AWARDS

1. Award of the best presentation of International Tehran Breast Cancer Congress (TBCC9), MCI congress. Tehran, Iran.18-20 October 2017
2. Approval of Non-thermal CO2 laser Therapy (NTCLT) as a novel laser procedure by Ministry of Health and Medical Education of Iran
3. Award of the best researcher of ACECR 2009 .
4. Award of the best researcher of ACECR .2016

EDITORIAL BOARD:

1. World Journal of Anesthesiology
2. Skin and Stem Cell Journal
3. International Journal of Clinical Medicine Research (The American Association for Science and Technology , AASCIT)
4. Laser in Medicine
5. Associate editor of Open Access Journal of Dental Sciences (OAJDS)