


Treating Acute Cervical Radiodermatitis with Photobiomodulation Therapy: A Report of Two Cases

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Published Online: 9 Jan 2020 | <https://doi.org/10.1089/photob.2019.4698>

Abstract

Objective: The objective of this study was to report the application of photobiomodulation therapy (PBMT) in the treatment of two patients diagnosed with acute cervical radiodermatitis (RD) induced by radiotherapy.

Background data: An undesirable effect of radiotherapy, RD often poses a limitation to the continuity of treatment that can negatively affect the control and prognosis of the disease. RD is frequently associated with pain and aesthetic impairment and can significantly influence quality of life. Many agents used to prevent and treat RD do not have sufficient scientific evidence to support its use.

Materials and methods: In both clinical cases, the patients presented RD degree 3 and were in drug treatment, with no satisfactory response, and PBMT was started. Two diode lasers were used, with a dose of 35.71 J/cm², 10 sec/point, 100 mW of power, and a beam area of 0.028 cm² and dose of 27.77 J/cm², 25 sec/point, 40 mW, and 0.036 cm² beam area. Both lasers were applied at the wavelength of red, daily, in contact and perpendicular to the skin, to deliver 1 J/point/1.5 cm, which covered the entire area affected with RD.

Results: The PBMT made possible an expressive improvement in the healing process and reduction of painful symptoms associated with RD.

Conclusions: Although PBMT facilitated healing and reduced pain experienced with RD, randomized controlled trials are needed to evaluate all of its possible benefits.