



Clinical report

The treatment of oral lesions in Behçet's Syndrome: Case report



Kelly Cristine Tarquinio Marinho*, Elcio Magdalena Giovani

Paulista University, São Paulo, SP, Brazil

ARTICLE INFO

Article history:

Received 20 March 2014

Accepted 19 May 2014

Available online 20 November 2014

Keywords:

Behçet's syndrome

Oral ulcer

Low-level laser therapy

Palabras clave:

Enfermedad de Behçet

Úlceras bucales

Tratamiento por láser de baja intensidad

ABSTRACT

Behçet's disease (BD) is a multi-systemic vascular disorder characterized by oral and genital ulcers, cutaneous, ocular, arthritic, vascular, central nervous system and gastrointestinal involvement. It usually affects young adults and the etiopathogenesis is unknown. A 21-year-old girl, Caucasian, with diagnostic BD, presented with rheumatoid arthritis, genital lesions and multiple recurrent ulcers inside the mouth, with an erythematous halo, covered by yellowish exudates exacerbated during menstrual periods, and in situations of stress and anxiety. The application of low power laser in ulcers was considered in order to decrease the inflammatory symptoms and pain, beyond getting the healing process accelerated. The proposed therapy was able to promote pain relief, increase local microcirculation and repair ulcerated lesions, eliminating the need for administration of systemic or topical medications, leading to improved quality of life.

© 2014 SECOM. Published by Elsevier España, S.L.U. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

El tratamiento de las lesiones orales en el síndrome Behçet: a propósito de un caso

RESUMEN

La enfermedad de Behçet (EB) es un trastorno vascular multisistémico caracterizado por úlceras orales y genitales, cutáneas, oculares, artritis, vascular, sistema nervioso central y afectación gastrointestinal. Afecta a los adultos jóvenes y la etiopatogenia es desconocida. Una paciente de 21 años de edad, caucásica, diagnosticada de EB, artritis reumatoide, lesiones genitales y múltiples úlceras recurrentes dentro de la boca, con un halo eritematoso, cubiertas por exudado amarillento exacerbadas durante los períodos menstruales y en situaciones de estrés y ansiedad. Se considera el tratamiento con láser de baja potencia en las úlceras con el fin de disminuir los síntomas inflamatorios y de dolor, más allá de lograr la aceleración del proceso de regeneración. El tratamiento propuesto fue capaz de proporcionar el alivio del dolor, aumentar la microcirculación local y reparar las lesiones

* Corresponding author.

E-mail addresses: kekeodonto@gmail.com, kekeodonto@yahoo.com.br (K.C.T. Marinho).

<http://dx.doi.org/10.1016/j.maxilo.2014.05.001>

1130-0558/© 2014 SECOM. Published by Elsevier España, S.L.U. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

ulceradas, eliminando la necesidad de administrar medicamentos sistémicos o tópicos, que conduce a mejorar la calidad de vida.

© 2014 SECOM. Publicado por Elsevier España, S.L.U. Este es un artículo Open Access bajo la licencia CC BY-NC-ND (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Introduction

Behçet's disease (BD) is a chronic inflammatory vascular disorder characterized by genital and oral recurrent ulcers, ocular, arthritic, cutaneous, blood vessels and central nervous system involvement, described in 1937 by Hulusi Behçet.¹⁻⁵

The etiopathogenesis of Behçet's disease is unknown. It has been postulated that immunological abnormalities, which are possibly induced by microbial pathogens in genetically susceptible individuals, are important in its pathogenesis. Recent findings have both supported the significance of genetic factors and defined better the nature of inflammation in Behçet's disease.^{1,2,5}

Usually the diagnosis is established in young adults and the manifestations are more prevalent inside the mouth, followed by genital areas.⁶ With the consensus on one set of criteria created in 1990 by The International Study Group,⁷ and further development of clinical protocols to measure their activity,⁸ instruments for standardization of research, BD has aroused great interest in recent years. However, BD's treatment comprises several strategies, which have been shown empirically, due to the lack of evidence-based information area. Laboratory tests are not useful in the diagnostic BD. This must be done from the specific criteria proposed by the International Study Group for Behçet,⁷ which preconizes recurrent oral ulcerations added to two ocular, cutaneous or genital expressions or rheumatoid arthritis.^{1,6,9,10} The prognosis for BD has a highly variable course, quite typical with frequent relapses and remissions.⁹ The mortality rate is low and when it occurs it is due to pulmonary hemorrhage, central nervous system or intestinal perforation. In the absence of these complications, the prognosis is generally good.^{1,8,9} The application of low power laser for treatment of oral lesions aims to reduce the painful symptoms, accelerating the healing process and decrease inflammation, as reported in this case.¹¹⁻¹³ We reported a clinical case of a 21-year-old girl, Caucasian, with frequent and recurrent oral ulcers inside the mouth and genital lesions. The application of low power laser in ulcers was considered in order to decrease the inflammatory symptoms and pain, beyond getting the healing process accelerated.

Case report

A female patient, 21-year-old Caucasian, university student, visited the Center for Study and Care of Special Patients (CEAPE) – Universidade Paulista – UNIP – Indianapolis Campus – São Paulo – Brazil, for diagnosis and treatment of frequent and recurrent oral ulcers. The anamnesis was done and the patient reported that she had been suffering from oral and genital lesions episodes that were exacerbated during menstrual periods, and in situations of stress and anxiety.



Fig. 1 – The oral ulcers in the edge and back of the tongue and lips.

The oral examination (Fig. 1) revealed multiple oral ulcers in the edge and back of the tongue, lips and mucosa bilaterally measuring approximately 0.5–1.2 cm with erythematous halo and covered by yellowish exudates. The biopsy was performed and the material was sent to the pathology's lab: 3 fragments of tissue with different sizes and shapes, approximately measuring 0.2 cm × 0.2 cm × 0.1 cm, brownish and friable. The microscopic examination of the histological specimen revealed a mucosa fragment lined by keratinized stratified squamous epithelia showing acanthosis areas and hydropic degeneration. The own lamina consists of dense tissue showing chronic inflammatory infiltrate. There was no evidence of granulomatous inflammation and the result presented chronic inflammatory process. In this case, low power diode laser using Gallium Aluminum Arsenide (GaAlAs) with a wavelength of 790 nm, power 30 mW, was punctually applied for 2 min and 20 s, in each clinical lesion with energy density of 4 J/cm² each point (Fig. 2a–d). On the 7th day we had observed total regression of the oral lesions (Fig. 3); however, the genital lesions had increased and had appeared edema on knees, pain and difficulty to walk. The patient had gone through medical evaluation, and the gynecological examination reported multiple ulcerations of the posterior vaginal wall with 1.5–2 cm, with a hyperemic halo, pain on palpation and abundant leucorrhea. In occasion, vaginal cytology, colposcopy and pathologic anatomy of the lesion and blood tests were conducted. We had obtained the following results: non-specific colpitis chronic with acute fibrin-leukocyte crust, erosion's foci, exocytosis and spongiosis; vaginal and urethral culture positive for *Enterococcus* sp, FAN/anti-DNA negative



Fig. 2 – (a–d) Application of low power laser (GaAlAs) in each clinical lesion.



Fig. 3 – On the 7th day we had observed total regression of the oral lesions.

and rheumatoid factor <20. Considering the stories and laboratory data, the physician prescribed prednisone 20 mg/day for 15 days and maintenance of 15 mg/day. Complete regression of the lesions previously reported was noted, with disappearance of all preexisting symptoms. Now she is under observation.

Discussion

Behçet's disease (BD) is a chronic inflammatory vascular disorder characterized by genital and oral recurrent ulcers, ocular, arthritic, cutaneous, blood vessels and central nervous system involvement.¹⁻⁵

The International Study Group for Behçet⁷ preconizes recurrent oral ulcerations added to two ocular, cutaneous or genital expressions or rheumatoid arthritis.^{1,6,9,10}

The patient presented with rheumatoid arthritis, genital lesions and multiple recurrent ulcers inside the mouth, with an erythematous halo, covered by yellowish exudates exacerbated during menstrual periods, and in situations of stress and anxiety being in agreement with The International Criteria for Behçet's Disease.

Conclusion

The treatment of oral ulcers in BD by low laser therapy provides decreasing of the painful symptoms, stimulates the local microcirculation, accelerates the healing process and decreases inflammation, remission from ulcerative lesions, in a short time, eliminating the need for administration of systemic or topical medications, avoiding undesirable side effects and improving the patient's quality of life.

Ethical disclosures

Protection of human and animal subjects. The authors declare that the procedures followed were in accordance with the regulations of the relevant clinical research ethics committee and with those of the Code of Ethics of the World Medical Association (Declaration of Helsinki).

Confidentiality of data. The authors declare that they have followed the protocols of their work center on the publication of patient data.

Right to privacy and informed consent. The authors have obtained the written informed consent of the patients or subjects mentioned in the article. The corresponding author is in possession of this document.

Ethical approval

The case report was approved by the Ethics Committee of Paulista University (643/09). Written informed consent was obtained from the patient for publication of this Case report and any accompanying images.

Conflicts of interests

The authors declare that they have no conflicts of interests.

Funding

The manuscript has no external financial support.

REFERENCES

1. Gül A. Behçet's disease: an update on the pathogenesis. *Clin Exp Rheumatol*. 2001;19 Suppl. 24:6-12.
2. Neves FS, Moraes JCB, Gonçalves CR. Síndrome de Behçet: À procura de evidencias. *Rev Bras Reumatol*. 2006;46 Suppl. 1:21-9.
3. Hirohata S, Kikuchi H. Behçet's disease. *Arthritis Res Ther*. 2003;5:139-46.
4. Yazici Y, Yurdakul S, Yazici H. Behçet's syndrome. *Curr Rheumatol Rep*. 2010;12:429-35.
5. Maldini C, La Valley MP, Cheminant M, Menthon M, Mahr A. Relationships of HLA-B51 or B5 genotype with Behçet's disease clinical characteristics: systematic review and meta-analyses of observational studies. *Rheumatol*. 2012;51:887-900.
6. Kakturk A. Clinical and pathological manifestations with differential diagnosis in Behçet's disease. *Patholog Res Int*. 2012 [on line version]. Available in: <http://dx.doi.org/10.1155/2012/690390>
7. International Study Group for Behçet's Disease. Criteria for diagnosis of Behçet's disease. *Lancet*. 1990;335:1078-80.
8. Bhakta BB, Brennan P, James TE, Chamberlain MA, Noble BA, Silman AJ. Behçet's disease: evaluation of a new instrument to measure clinical activity. *Rheumatol*. 2011;38: 728-33.
9. Davatchi F, Shahram F, Chams-Davatchi C, Shams H, Nadji A, Akhlaghi M, et al. Behçet's disease: from east to west. *Clin Rheumatol*. 2010;29:823-33.
10. Saadoun D, Cassoux N, Wechsler B, Boutin D, Terrada C, Lehoang P, et al. Ocular manifestations of Behçet's disease. *Rev Med Intern*. 2010;31:545-50.
11. Galdames ICS, Sepúlveda MCL, López MGC, Matamala DAZ. Efecto de la Aplicación de Láser de Baja Potencia Sobre la Mucosa Oral Lesionada. *Int J Morphol*. 2007;25:523-8.
12. Demetriades N, Hanford H, Laskarides C. General manifestations of Behçet's syndrome and the success of CO2-laser as treatment for oral lesions: a review of the literature and case presentation. *J Mass Dent Soc*. 2009;58:24-7.
13. Caputo BV, Noro-Filho GA, Santos CC, Okida Y, Giovani MG. Laser therapy of recurrent aphthous ulcer in patient with HIV infection. *Case Rep Med*. 2012 [online version] 2012. Available in: <http://dx.doi.org/10.1155/2012/695642>