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ABSTRACT

Use of laser therapy in pilonidal cysts

Uso de la terapia con láser en quistes pilonidales

Uso de laserterapia em cisto pilonidal

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Introdution: Pilonidal cyst is a chronic inflammation of the post-sacral sinuses that affects the skin area posterior to the anus, covering the sacrum in the intergluteal cleft region[1]. The first symptoms of a pilonidal cyst involve the formation of an abscess, with a lot of swelling and pain. It can cause fever due to the acute inflammatory condition and, therefore, it may be necessary to drain the material accumulated in the cyst as a palliative solution, as the use of antibiotics may be indicated to control the process, but it also does not solve the problem. In the chronic phase, the orifices of the pilonidal cyst can persistently eliminate secretion[2]. Although the treatment is mainly surgical, there are several surgical techniques described in the literature that include cyst excision, minimally invasive techniques, such as laser treatment. This technique offers results as positive as conventional surgery, but with more comfort for patients[3]. Laser has been characterized as a powerful anti-inflammatory, whose advantages over conventional drugs are numerous, mainly due to the absence of side effects, specific local action, and great acceptance by patients. The treatment is a quick and effective method, which is performed by a professional laser therapist specialist.

Objective: Analyze the contribution of low-intensity laser (LLL) in the treatment for wound healing after pilonidal cyst surgery as a therapeutic possibility.

Methodology: This is a case study of a 35-year-old male E.M patient, without comorbidity, who underwent removal of a pilonidal cyst on 08/17/2017 through conventional surgical removal. He was discharged from the hospital and left with a topical dressing (hydrogel) in daily changes for two years with 0.9% saline solution and local use of calcium alginate twice a day, with unsatisfactory results. On 07/02/2019, he collected cultures with pseudomonas and treated them with cephalexin. He returned to the hospital on December 1, 2019, where he started photobiomodulation therapy, proceeding with the removal of the dressing and asepsis before the applications. After the patient read and signed the Informed Consent Form (FICF), LLLT applications were punctually administered around the edge of the surgical wound, maintaining an interval of 2 cm from each point, throughout the extension of the dehiscence, preserving 0.5 cm away from the skin. Diode Laser (DMC, Brazil) was used with the following parameters: λ=685 nm, Fluency=4.5J/cm2, P=20mW and before applications, measurements of MI (cirtometry) were performed, following the evolution the area and depth of the wound. For pain assessment, the Visual Analog Scale (VAS) was used (in which zero indicated total absence of pain, and 10 represented unbearable pain).

Results: In the first session, there was the presence of opaque pink tissue with secretion; in the last session held on 12/11/2019, regression of the lesion was diagnosed. During treatment with LLLT, the wound revealed an increase in granulation tissue in all its extension and delimitation of the edges, as well as a decrease in fibrin. It is emphasized that there was no need for debridement at any time during treatment with LLLT, only being covered with gauze before the patient returned to her home, requesting daily asepsis only with 0.9% DES. The laser was applied twice a week until complete closure, without the administration of any medication, totaling 11 sessions.

Conclusion: The importance of photobiomodulation in dehiscence after conventional surgical removal of a pilonidal cyst by laser therapy was found, signaling to be a new non-invasive proposal for an effective and safe treatment, due to its efficient anti-inflammatory and analgesic action, helping in the tissue repair process.

References

1. Mendes CRS, Ferreira LSM, Salim L. Estudo multicêntrico brasileiro e argentino no tratamento cirúrgico do cisto pilonidal por técnica minimamente invasiva. Arq. Bras. C. Dig. 2019 out.;32(3). DOI: /10.1590/0102-672020190001e1447
2. Braun M. Tratamento Efetivo a Laser. Postado em Medicina, Proctologia, Saúde. 2018
3. Pappas A, Christodoulou D. A new minimally invasive treatment of pilonidal sinus disease with the use of a diode laser: a prospective large series of patients. Colorectal Dis. 2018;587-591. DOI: 10.1111/codi.14285