AB006. The low-level laser therapy in the prevention of oral mucositis in pediatric cancer patients at Children's Hospital of Brasilia

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Abstract: Oral mucositis (OM) manifests in more than 60% of patients undergoing chemotherapy, impacting their quality of life, increasing morbidity and mortality rate. Therefore, it is important establishing a suitable protocol for the treatment and also the prevention of OM. Low-level laser therapy (LLLT) is an effective method of prevention, but there is no consensus regarding an appropriate dosimetry. The purpose of this study is to verify effectiveness of preventive laser in children undergoing treatment for acute lymphoblastic leukemia (ALL) at the Children's Hospital of Brasilia (HCB). Patients who use Methotrexate (>1 g/m^2), received application of LLLT in order to prevent OM, starting at a day after the beginning of the cycle, with three consecutive applications in the same week. They were selected and distributed in two groups of 22 patients. G1: it was applied an energy density of 2 J/point at an approximate distance of 1 cm, touching the tissue during 2 s. G2: it was applied an energy density of 2 J/point at a distance of 2 cm between points, touching the tissue during 2 s. Patients returned on the 8th day to evaluate their oral cavity. Statistical analysis was performed by using SSPS Statistics. During 2 years 37.68% of patients had OM manifestation of varying degrees during chemotherapy. In this study patients allocated in G1, 88.5% showed no signs of OM and G2 92.9% also showed no signs of OM. The preventive use of LBP has been beneficial, and that irradiated patients in less points (G2) had better answer. And those who showed predisposition an OM, had less severe form. The adoption of an appropriate protocol of the preventive use of LBP, search for a dental treatment led to a scenario of nonexistence of severe OM manifestations in pediatric patients.

Keywords: Oral mucositis (OM); pediatric; acute lymphoblastic leukemia (ALL)

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