

Amelioration of oral mucosal lesions of acute graft-versus-host disease by low-level laser therapy

A 42-year old male allogeneic bone marrow transplant recipient was diagnosed as having grade III acute graft-versus-host disease (GVHD). On day +50, he had severe oral GVHD, with xerostomia, cheilitis, and lesions on the oropharynx and tongue. Low-level laser therapy (LLLT) was applied on the palate and inferior labial mucosa. In 24 hours, xerostomia had improved, and LLLT was continued, including the tongue. Four days later, cheilitis disappeared, salivation improved, the papillae recovered and oropharyngeal lesions improved, with relief of pain. Unfortunately, systemic GVHD persisted, and the patient died of disseminated aspergillosis. Prophylactic LLLT can reduce the severity of mucositis in autologous bone marrow transplantation.¹ According to our observation, it may also be useful for treatment of oral lesions in GVHD.

Ana Chor,* Alexandre Barbosa Sotero Caio,#
Alexandre Mello de Azevedo#

*Serviço de Cirurgia de Cabeça e Pescoço, Instituto Nacional de Câncer, Rio de Janeiro, Brasil; *Serviço de Odontologia, Instituto Nacional de Câncer, Rio de Janeiro, Brasil;

#Centro de Transplante de Medula Óssea (CEMO), Instituto Nacional de Câncer, Rio de Janeiro, Brasil

Correspondence: Alexandre Mello de Azevedo, MD, Centro de Transplante de Medula Óssea (CEMO), Instituto Nacional de Câncer, Praça Cruz Vermelha 23, 7o andar, Rio de Janeiro, RJ 20230-130, Brasil. Fax: international +55.21.25092121. E-mail: alexazevedo@inca.org.br

References

1. Cowen D, Tardieu C, Schubert M, et al. Low-energy Helium-Neon laser in the prevention of oral mucositis in patients undergoing bone marrow transplant: results of a double blind randomized trial. *Int J Radiat Oncol Biol Phys* 1997; 38:697-703.

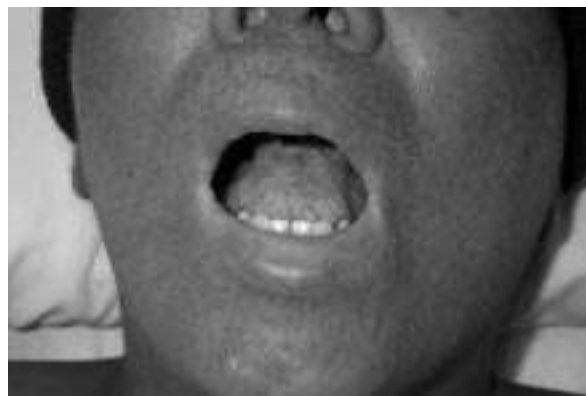


Figure 1. Xerostomia, cheilitis, crusts and diffuse erythema of the mucosa before LLLT.

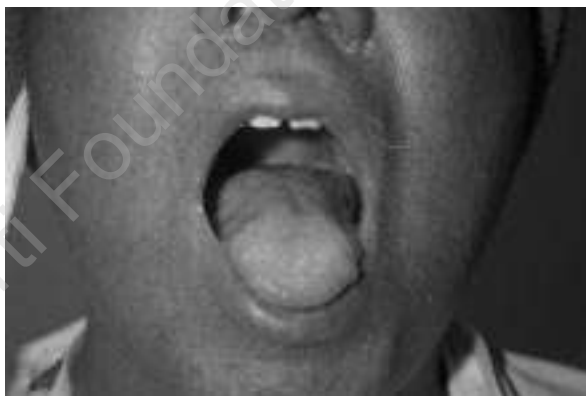


Figure 2. Improvement of xerostomia and cheilitis, with recovery of the papillae, four days after start of LLLT. Note the normal amount of saliva covering the tongue.