Treatment of Mucous Membrane Pemphigoid with a Combination of Nd:YAG and Er:YAG Lasers

Ron Kaminer, DDS

In this clinical case we treated a patient diagnosed with mucous membrane pemphigoid, an autoimmune disease till now treated with steroid creams. This form of traditional treatment, however, does not bring desired results, patients complain of pain, bleeding and soughing of tissue. With the hope of achieving better and faster results, we decided to use a combined laser technique, utilizing both Nd:YAG and Er:YAG laser sources using the Fotona dental laser system.

On first inspection we noted the patient had a lesion in mandible near the canine (Picture 1). Dental pockets were 3 to 6 mm deep and the tissue was bleeding on probing. After the first pass with the Nd:YAG laser, the bleeding was difficult to control. It was somewhat controlled, though, following the second pass with the Er:YAG laser. After scaling with a Piezo scaler to remove all calculus, the Nd:YAG laser was used for the second time to complete coagulation. Sloughing of tissue, common with pemphigoid, was noted from lateral to central incisor, but homeostasis was still observed (Picture 2). Coagulation was also achieved on the mandibular arch.

One week later speckling of the Er:YAG laser energy on the tissue was administered two times a week as a form of a »dermabrasion« treatment to remove dead epithelium and possibly bio-stimulate underlying cells (Picture 3).

Three-week post-operative results revealed that the tissue was better, but inflammation was still present (Picture 4). Additionally, the patient still reported slight bleeding. Additional bi-weekly Er:YAG treatments were performed for five weeks. On a six-week post-operative check-up the patient experienced no bleeding, sloughing or pain. The tissue was healthy and there were no pemphigoid lesions (Picture 5). Four-month post-operative results revealed the same (Picture 6). This proves that Fotona’s Nd:YAG and Er:YAG laser combination can be used to successfully treat mucous membrane pemphigoid.