

445 nm Blue Laser in Excisional Biopsy of a Large Lipoma of the Mouth Floor [†]

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Lipoma is a benign mesenchymal neoplasm, that origin from adipocytes, uncommon in oral cavity (less of 5% of the cases). It has a slow growth and often it is asymptomatic, so the diagnosis could be late. In oral cavity, buccal mucosa, tongue and mouth floor are often involved [1]. Lipoma is a submucosal lesion, sessile or pedunculated, covered by healthy mucosa, consisted of a yellow, lobulated, circumscribed and soft mass, in most cases not exceeding 1cm in diameter. Histologically, it is a mature white adipose tissue without atypia and it can be found in the variant of fibrolipoma [2]. When an oral lipoma occurs, a surgical treatment is required.

A 46-year-old female patient with a negative medical and dental history came to our observation.

The patient reported a painless swelling at mouth floor, occurring one year ago, that troubled chewing and swallowing.

At oral examination it appeared like a 3 cm × 2.5 cm sessile lesion covered by normal mucosa, from which shine through a yellow color (Figure 1).



Figure 1. Intraoral view of the lesion.

At Ultrasound examination, the lesion appeared hyper-echoic and not infiltrated [3].

At Magnetic Resonance Imaging (MRI), at T1-weighted, signal was high. The lesion was placed upper than muscles plane, with major longitudinal axis of 27 mm, next to genioglossus muscle and beyond the median raphe.

An excisional biopsy was scheduled; the surgical approach was made through 445 nm diode blue laser (K-laser, Eltech s.r.l., Treviso, Italy) at 2Watt in Continuous Wave, with 320 µm optical fiber.

Blue laser has been used to make the initial vertical incision (Figure 2), it works by layers so it can isolate the superficial mucous layer from the lesion capsule, the lesion was isolated with Metzenbaum scissors and excised by laser. Laser permitted the control of bleeding, since its optimal hemostatic effect due to wavelength congenial to hemoglobin.



Figure 2. Laser vertical incision.

After the excision, the residual cavity was filled with iodoform gauze and 3-0 suture was applied. After 4 days, the gauze was removed in relation and an almost complete healing was observed.

The specimen was histologically analyzed and it has resulted as lipoma.

Two months follow-up shown a complete wound healing and no recurrences.

Diode blue laser, used to approach to benign neoplasms like lipomas, can offer an advantage both in the isolation of the lesion with respect to the surrounding tissues and in the intraoperative visibility thanks to the coagulation.

Conflicts of Interest: the authors declare no conflict of interest.

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