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Er:YAG Lingual Fibroma Removal – A Case Study

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In this case a patient presenting with several, localized lingual fibromae, was referred by the patient's dentist. The patient reported aesthetic concerns and general annoyance with repeatedly biting the lesion, causing discomfort. After confirming the lesion was benign, the decision was made to remove the lesion using Er:YAG laser. If there is any doubt that the lesion may not be benign it is paramount to have a biopsy checked out by a qualified laboratory. Conventional techniques would include the use of a scalpel or a radio-frequency device, which would have required stitching in this case. This would have lead to some degree of post-operative discomfort as well as the need for a return visit to remove the stitches. The procedure was performed under local anesthesia. Using the treatment parameters described below no bleeding occurred during the procedure. SP mode was used to ablate the fibroma to just above the adjacent tissue. Longer, LP mode pulses were used to continue ablation down to the level of the adjacent tissue. The thermal effect of the longer, LP mode pulses coagulate the smaller blood vessels in the surrounding area, eliminating bleeding. The ablative action of the Er:YAG laser, which removes tissue in micron-thin layers, contributes to higher levels of accuracy in planning the lesion. These levels of accuracy would be hard to achieve with more conventional in the 1-minute treatment time it took with the Er:YAG laser. In addition, the hemostasis provided by the laser reduces hematoma formation, thereby contributing to a more comfortable recovery. In that respect the use of the ER:YAG laser to remove lingual fibromae provides unique benefits and can be considered irreplaceable for such treatments in oral surgery.

Laser source:	Er:YAG (2940 nm)
VSP Mode:	SP and LP
Fluence:	5 – 9 J/cm ²
Frequency:	7 Hz
Handpiece:	R11*
Spotsize:	4 mm
Water/Air Spray Setting:	None

* available in AT Fidelis Aesthetic Upgrade package

No further post-operative care was required. The wound should heal without problems through the formation of new fibrin. The patient was released immediately after the procedure with instructions to use the tongue normally; moving the tongue avoids scar formation. The main benefit of the ER:YAG lingual fibroma removal procedure for the patient is its simplicity, speed and minimal discomfort both during and post-operatively. It is an ideal solution for young patients.

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- Extended Er:YAG operating range for soft tissues.



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Before



Immediately after