

Clinical Bulletin

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Nd:YAG Treatment of Multiple Hemangiomae in the Oral Cavity – A Case Study Assist. Aleš Vesnaver, M.D., M.S., Specialist Maxillofacial Surgeon

A 62-year old male presented with multiple, intra-oral hemangiomae located on the tongue, lips and cheeks. The patient reported loss of normal function with moderate to severe impairment during normal activity. The risk of accidentally biting any of the hemangiomae, leading to excessive bleeding, was determined to be high and imminent.

We therefore decided to treat immediately with the Fotona Nd:YAG laser because the procedure is fast, the treatment can be completed in one single session and it is minimally invasive with good long-term results. The laser's 1064nm wavelength allows it to penetrate deep into the tissue and the lesion, where its energy is absorbed by hemoglobin, creating virtually immediate coagulation and shrinking of the lesion. Alternative therapies include chemical sclerotherapy which requires radiological control, excision which is time-consuming, cryotherapy which is hard to control and electro-cauterization that poses a significant risk of excessive bleeding and procedural complications if the lesion is penetrated into.

The procedure was completed under general anesthesia with nasotracheal intubation. Each individual lesion was treated using the same procedural steps in which the lesions' borders were first outlined with the laser, with the fiber tip in near contact with the tissue surface. Then lesions were systematically covered with consecutive passes across their entire surface. Immediate shrinking and blanching of the mucosa was observed. Varying the distance between the fiber tip and the mucosa can to a certain degree alter and control the shrinking and blanching effect. When initiating the treatment the fiber tip is held slightly further from the target, once the clinical effects of the parameter settings have been confirmed visually, the target is closed in on with the fiber. This procedure was completed, without any complications, within 30 minutes. The patient was left intubated for 24 hours due to possible airway compromise because of post-operative oedema of the tongue. In such cases significant post-operative edema is to be expected lasting from the first 24 hours post-operatively to several days after the procedure.

Laser source:	Nd:YAG (1064 nm)
VSP Mode:	SP
Power:	12 W
Frequency:	50 Hz
Handpiece:	R21 with 300 µm fiber
Water/Air Spray Setting:	None

The patient was placed on a soft diet and oral non-steroidal analgesics for 7 days after the procedure, and spent three days in hospital care. Healing proceeded normally with re-epithelization starting from the wound margins. Complete wound healing and return to normal function was achieved within 5 weeks after the procedure.

