



University of Bari
Department of Odontostomatology and Surgery – Dept. Head: Prof. ssa D. De Vito

Calabrodental S.r.l. Operative Unit of Maxillo-Facial Surgery
Regione Calabria – Crotona

The use of Nd:Yag laser in the treatment of angiomas in patients with Sturge-Weber syndrome

*A.M. Inchingolo, F. Inchingolo, F. Carbotti, S. Cefola, M. Serafini, M. Decarolis, A. Palladino, M. Tatullo, A.D. Inchingolo, M. Marrelli, G. Dipalma

AIM: The aim of the present study is to verify and prove the effectiveness of Nd:Yag laser in the treatment of patients with Sturge-Weber Syndrome, who are at increased risk of hemorrhage during gingivectomy for angioma removal.

MATERIALS AND METHODS: The effectiveness of Nd:Yag laser was measured by treating several patients with Sturge-Weber Syndrome. In this case, a pulsing 1.064 μm Nd:YAG 10W (Laser Innovation, Rome, Italy) was used. A Nd:YAG laser unit with a fiber of 400 μm was used. In the first surgical phase, the laser parameters were: frequency 40 Hz, energy 130 mJ, power 4W. In the hemostasis phase, the laser parameters were: frequency 200 Hz, energy 20 mJ, power 4W. Total surgery time was approximately 2 hours.

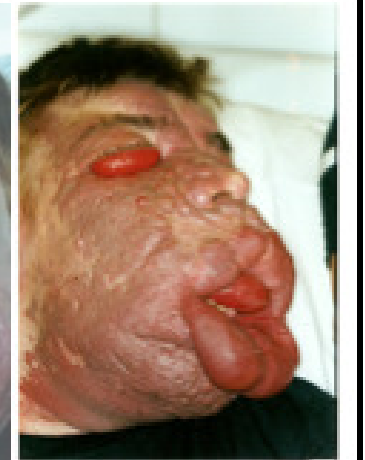


Fig. 1 - Frontal view, bilateral SWS with PWS involving nearly all facial skin Fig. 2 - Lateral view

RESULTS AND DISCUSSION: Besides improving the postoperative follow up and reducing the incidence of angiomas, Nd:Yag laser proved advantageous in improving surgical site visibility, bloodless and reducing the time of surgery, compared to traditional procedures. No obvious postsurgical bleeding was noted.

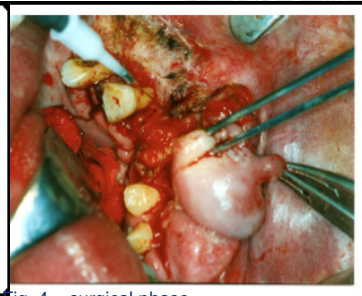
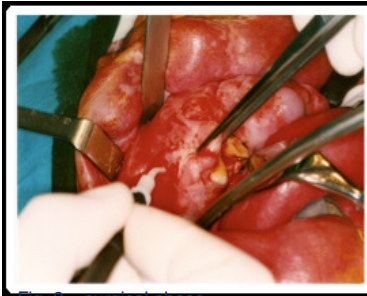


Fig. 3 – surgical phase

Fig. 4 – surgical phase

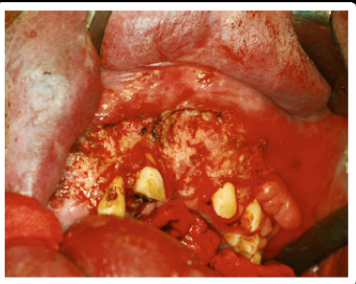


Fig. 5 – immediate post-surgical view

CONCLUSIONS: In the light of the studies in literature, Nd:Yag laser, with its great hemostatic properties, is the right choice in the surgical treatment of patients at great risk of hemorrhage, such as patients with Sturge-Weber Syndrome.



Fig. 6 – frontal view, post-surgical site

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