

## IMPLANT REHABILITATION IN PATIENTS WITH ECTODERMAL DYSPLASIA

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**Aim:** Ectodermal Dysplasia (ED) denotes a heterogeneous group of genetic diseases characterized by congenital defects in ectodermal structures such as hair, teeth, nails and sebaceous glands. The main manifestations of the oral cavity include dental anomalies in numbers (hypodontia, anodontia) or tooth malformations with conic or knife blade shape. This report describes the fixed prosthetic rehabilitation in children with ectodermal dysplasia.

**Methods:** two male children aged ten and eleven years were affected by ED. Conoid incisors teeth, premolars and first molar were present in the upper jaw of the patients. In the lower arch, however, only the permanent canines were present wi-

thout the presence of dental buds from other teeth. They were treated with a fixed prosthetic rehabilitation. In lower arch, an overdenture was designed after placement of three tapered implants (3,8 x 10mm).

**Results:** at three-years of follow-up, implants had no clinical or radiographic negative signs. An adequate vertical height was maintained. The overdenture was well accepted by the patients who reported excellent improvements in masticatory function and aesthetics.

**Conclusions:** in children with ED, the oral rehabilitation with fixed prosthesis can be considered a valid therapeutic alternative to removable prostheses even in pediatric patients.

## LASER BIOSTIMULATION IN IMPLANT DENTISTRY AND ASSESSMENT OF ITS RELIABILITY

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**Aim:** Low level laser therapy (LLLT) is based on the principle that photons produced by low power laser stimulating chromophores involved in Krebs Cycle such as NAD and FAD enzymes, improve ATP production enhancing mitosis, and reducing the time of healing for the injured tissues.

**Methods:** we reported the application of LLLT as aid in the osseointegration in two patients undergone to implant surgery in the upper jaw. In one hemi-arch the LLLT was applied and the other one was used as control. A Nd-Yag laser was used (length wave 1024 nm), fixing power at 1.00 W, energy at 100 mJ, and time at 60''. An optical fiber of 600 lm was used, so as to apply it in the fornix at the T0, the 3<sup>rd</sup>, the 5<sup>th</sup> and the 7<sup>th</sup> day from the intervention.

**Results:** the assessment of the bone area surrounding the fixtures was performed by means of cone beam computed tomography at 4th month follow-up and the area of bone-implants contact was measured by means of InVesalius® software. It was possible to notice that the bone formed around the fixtures was better for quality and quantity than that one in the other untreated side.

**Conclusions:** the photobiostimulation medicine represents a very promising therapeutic option to speed the bone healing after oral surgery procedures, including the implant placement. However, the strength of its reliability must be further investigated together with an established protocol.