Iuxta-Periosteal Implants. Current Concepts and Clinical Review

INTRODUCTION

Iuxta-periosteal Implantology is a technique used in implant-prosthetic restorations for more than 70 years. Dahl from Sweden was the Surgeon who first to reported scientific documentation in 1940.

It consists of custom-made grids that exploit the architecture of the basal component of the maxillary or mandibular bone on whose surface they are juxtaposed instead of penetrating the bone structure itself as is the case for traditional screwed implants. The mechanical resistance to the masticatory load is ensured by the resilience offered by the bone architecture and by means osteosynthesis fixation screws that fix the structure to the site where they lay.

It is indicated in the rehabilitation of severely atrophic bone bases, replacing the reconstruction-regenerative techniques necessary to allow the use of traditional endo-osseous implants.

MATERIALS AND METHODS

We will report the most current techniques used for the design and production of these implants. We will illustrate the diagnostic flow from the acquisition to the preparation of the data used. We will show the surgical insertion technique, and last findings on of the immediately loaded prosthetic rehabilitation that follows.

DEBATING

Implant digital project is related to the jaw anatomy of the patient to be inserted. It is the result of a complex digital workflow that starting from the local bone anatomy leads to the drawing of both the implant and restoration.

Over the years, with the transition of analogical to digital methods, it has undergone changes and improvements in design, production and above all in the functional performance offered. The technique needs a medium-high level of prosthetic and surgical skills, and equally high digital design potentiality skills. Results and Clinical experience, in our clinical practice and as reported by the literature, are comparable to conventional implantology in terms of long-term prognosis. Given the indication of applicability to strongly atrophic bone bases and the rigid respect of inclusion/exclusion criteria, it bypasses all the techniques of bone reconstructive surgery used as an essential prerequisite in rehabilitation on traditional screwed implants.

KEYWORDS Iuxta-periosteal implants // atrophic maxillary base rehabilitations

AUTHORS: **DR Amanda Lengo Gomez Dmd** (Seville – SPAIN); **DR Emanuele Barbera Dmd** (Monza – ITALY); **Ms Zaira Pace Aso** (Trapani – ITALY); **Dr Luca Barbera Md Dmd (**Monza - ITALY)