

SuperStructure Design

Last Updated Friday, 01 September 2006

Super Structure Design for Full Reconstruction on Dental Implants

A major problem in designing maxillary fixed implant prostheses is that the usual angulation of the anterior maxillary ridge is such that it is often difficult to place implants totally within the confines of the prosthesis. It is not uncommon to have implants in this area that are at a 15 to 20 degree angulation and if a fixed, screw retained hybrid restoration were utilized, screw hole would invariably perforate the buccal surfaces of the "teeth" making for a significant esthetic problem. To get around this problem, it is not unusual to make a substructure bar with a superstructure prosthesis retained by palatal screws.

Traditionally, these superstructure arrangements have two very significant problems:

1. Screws are not standardized in terms of size and very often cannot be interchanged. Loose one and it might be very difficult to replace it.
2. Technicians usually use slotted screws. These work just fine on the lab bench, but in the mouth they are a nightmare.

After completing a bunch of these restorations over the years, my lab technician, Zahir Esmail(Impla-Tek) came up with a solution and I would like to share it with you. SRD