

The Fixed-Removable Full Arch Implant Restoration; A CAD-CAM titanium bar and a removable high precision supra-structure with sliding locks

Purpose:

When rehabilitating the extremely atrophied jaws with dental implants, there usually are two different treatment approaches; A fixed retained prosthesis vs. a removable denture with attachments. Each treatment option has its advantages and disadvantages.

The purpose of this study is to introduce and evaluate a novel CAD-CAM fixed-removable restoration which combines the advantages of the treatment options that had been in use up to now .

Methods:

10 patients (6 females, and 4 males) were included in a retrospective clinical study. 2 of the patients had zygomatic implants. The patients were rehabilitated with a fixed titanium CAD-CAM screw retained bar and a removable - high precision Suprastructure with buccal or palatal/lingual sliding locks. We evaluated the patients, after 6 to 7 years .

The parameters studied were :aesthetics, phonetics, function, hygiene, inter arch distance, anterior-posterior gap, occlusal loads, compromised implants position and angle, implant survival rate, materials, maintenance, repairs, palate coverage, gummy smile, lip support, and psychological - social self image.

Results:

The majority of the cases(10) had been successful. All implants survived 6-7 years without any failure after loading and the dental prostheses functioned without any technical problems. The patients reported their overall satisfaction with their restorations .

Conclusion:

We have introduced an innovative hybrid fixed-removable acrylic-titanium full arch restoration. This method combines the advantages and minimizes the disadvantages of the two treatment options that were used up to now. Thus enabling the patients to maintain proper oral hygiene while being able to enjoy the advantages of a fixed full arch restoration.