

Staged Approach in Implant Supported Maxillary Rehabilitation

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Pre treatment X-Ray



Final rehabilitation -
clinical photograph



4 year follow up



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Today the leading buzzword in implantology is "immediate loading" or "immediate function". Methods considered impossible 15 years ago are now accepted as evidence based treatments. This is evident at medical conferences, in publications of implant companies, and among patients exposed to advertising information online.

As clinicians, it is important to remember that immediate loading is only one of the many tools available for us. Although personally I'm utilizing immediate loading extensively I do believe that as clinicians we should always remember that:

Immediate loading is a therapeutic technique rather than a therapeutic ideology!

Indeed dental research shows that immediate loading has similar success rates as staged or delayed loading. Nevertheless, each case must be examined individually: and the right suit for the specific patient should then be properly tailored. When we consider immediate loading as the treatment plan, we must remember that there is a significant difference between a single crown or crowns installed without occlusal contact and a restoration that has full occlusal functioning immediately after implantation.

The case shown here, (treated in 2004) is that of a 60-year-old female patient with hypertension, obesity, type II diabetes mellitus and spinal orthopedic disorders. The patient used upper and lower RPDs for years.

Main complaint: mobility of upper incisors, discomfort in functioning with upper RPD.

She was very interested in a fixed rather than a removable prosthesis. Upon clinical examination: upper incisors with (+2) mobility, yet the molar (16) was very stable. In addition, there was evidence of clenching & bruxing parafunction (worn facets, developed masseters etc), but without any significant clinical complaint on the issue. The patient maintained moderate oral hygiene.

After referring the patient to a CT scan, it was found that implants could be positioned reasonably for supporting a fixed prosthesis with shorten arch (first molars).

Despite the technical ability and the patient's request to perform an immediate loading restoration, I decided to take a conservative approach and perform the implants and rehabilitation gradually.

Pre treatment X-Ray



fig. 1

Treatment stages:

- Initial preparation.
- Implants in maxillary posterior areas.
- Exposure of implants and impressions for implant supported temporary acrylic bridge with a metal cast frame.
- Extraction of front incisors and immediate implant placement, abutment insertion in the posterior implants and provisional restoration with the prefabricated bridge.
- Exposure of anterior implants, preparation of abutments for the implants and fitting a temporary bridge.
- Final PFM bridge.
- Maintenance and follow up.

Considerations for choosing the treatment plan:

- None of the subjects indicated in the medical history alone absolutely contraindicated implantation followed by immediate loading.
- For example: Injecting botulinum toxin into the masticatory muscles and immediate loading may be performed on a bruxer patient - effectively bypassing the parafunction for 2-3 months.
- Integration of all factors together yields a dangerous situation for the patient and high risk of failure during an attempt at implantation and immediate loading.
- In addition, due to the spinal problems, the patient would have found it difficult to sit through a long single session.
- Other aspects of the treatment such as: bone augmentation, final aesthetic results, long term survival of the restoration and many others - might also change the direction of the treatment plan towards a staged approach rather than immediate loading.

Data on file.

Description of Actual Treatment:

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Implants in posterior areas in the maxilla



fig. 2

Extraction of front incisors, immediate implant placement augmentation with DFDBA and PRF membranes



fig. 4

Fitting abutments to implants in the upper incisor area



fig. 6

Final rehabilitation - panoramic X-Ray



fig. 8

Smile at the end of treatment



fig. 10

Preparation of abutments for distal implants and a temporary acrylic bridge with a cast metal frame



fig. 3

Delivery of reinforced temporary bridge after extractions and immediate implantation.



fig. 5

Metal frame of the final bridge



fig. 7

Final rehabilitation - clinical photograph



fig. 9

4 year follow up



fig. 11



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