

# IMMEDIATE FUNCTIONAL LOADING IN MANDIBULAR POSTERIOR REGION; PROSPECTIVE CLINICAL STUDY



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## OBJECTIVE

Immediate functional loading considered an advantage reducing time, cost and second surgery time. Implant design plays a great role to enhance osseointegration; providing an additive. Aim of this study is evaluating the results of an immediate functional loading in single mandibular posterior region.

## METHODS

- \* Sixteen patients with very restrict inclusion criteria including bone quality, bone quantity and bone angle.
- \* All patients evaluated by CBCT to identify the selection criteria.
- \* Eighteen implants (Kontakt® Implant - Biotech International - France) were received according to surgical protocol.
- \* All implants inserted with insertion torque more than 35 N.
- \* All patients received straight nano post abutments and definitive restoration within 48 hours post implant insertion.
- \* Radiographic evaluations were performed at the base line and after year to evaluate crestal bone level.
- \* Three measures were obtained for each implant;

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implant length at midaxis and mesial and distal crestal perpendicular bone lengths to the apical end of the implants (used as reference point).

- \* Mesial and distal crestal perpendicular bone results were standardized with the known midaxis implant length.
- \* Mesial and distal bone lengths were then averaged and the mean bone level change was computed.

## RESULTS

- \* Seventeen implants were clinically successful, one implant failed due to infection , yielding a success rate of 95 %
- \* The radiographic crestal bone levels were expressed in millimeters from the top of implant platform to the first bone to implant contact.
- \* The radiographic analysis reveals the mean crestal bone level change for one year was  $-0.45 \text{ mm} \pm 0.10 \text{ mm}$ .

## CONCLUSION

With the limitations of this study concerning the sample size; this prospective study indicates that immediate functional loading protocol can achieve a clinically predictable outcome with respect to restricted inclusion criteria of the patients.

