

Evaluation of low intensity laser therapy on sockets healing under immediate maxillary dentures

Eman Sheira

Ain shams University, Saudi Arabia

Objective: Evaluation of low intensity laser therapy on sockets healing under immediate maxillary dentures.

Method: 12 Patients were divided into 2 groups of 6 patients each. Regular steps for immediate denture construction were followed in addition to a transparent template construction that was used as a guide for pressure areas under the immediate denture on its insertion. Simple extractions of remaining anterior teeth were performed just before immediate denture insertion that was loaded by (TCM). Group I patients (control group) had received immediate dentures without laser application post-insertion while Group II patients (study group) had received low intensity diode laser therapy (980 nm) six times starting the 2nd day of denture insertion. Both groups were followed up clinically and photographically for soft tissue healing of extraction sockets at time intervals of 1, 2, 3 and 6 weeks post denture insertion using computer color analysis by "Adobe Photoshop" program worked on standardized digital photographs. Patients were also followed up radiographically by standardized digital panoramic radiographs to measure bone density at the extraction sockets using DIGORA soft ware at time intervals of 1 day, 6W. & 12 W. post-extraction.

Result: By statistical analysis, there was no significant difference between both groups in bone density at 1 day post-extraction, while the bone density in laser group was significantly higher than control group at 6 W and 12 W post-extraction and immediate denture insertions. There was also a significant improvement in the soft tissue healing in laser group compared with control group at 1 W, 2 W, and 3 W post-extraction while there was no significant difference between the two groups at 6 W post-extraction and immediate denture insertions.

Conclusion: Low intensity laser has the ability to significantly improve and accelerate the soft tissue healing and increase bone density under removable prosthesis.

emanzaki@hotmail.com