

Evaluating the influence of different soft liners Retaining mini implant supported mandibular over denture on the marginal bone height.

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Abstract:

Introduction: Using a soft liner-retained implant-supported overdenture offers the restorative dentist a treatment option when the number, location, or angulation of dental implants placed may differ from the original treatment plan. The aim of the present study was to evaluate the marginal bone height changes in mini-implant supported overdentures using different retaining denture soft-liners.

Patients & Methods: Twenty-one completely edentulous cases were selected for this study. The patients were allocated into one of the three treatments groups. In group I the lower overdenture was relined with “acrylic based soft liner”; group II the lower overdenture was relined with “silicon based soft liner”, while in group III: the lower overdenture was relined with “Retention Sil 200”. Patients in all groups received CBCT immediately after the implant loading, 6 months and 12months after insertion of partial overdenture. Each implant was evaluated for the marginal bone level.

Results: The Silicon, Retention Sil 200 and acrylic based soft liners showed a statistical significant difference in the amount of bone resorption.

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Conclusion: the current study concluded that Silicon and acrylic based soft liners show significant difference in their effect on the supporting bone due to stresses transmitted to mini-implant retained mandibular overdentures. Retention. Sil resilient liners cannot be considered as a permanent mean of retention for mini implant retained mandibular but it shows high success for short- and medium-term management.

Key words: overdentures, mini-implants, soft liners, acrylic base soft-liners, silicon based soft-liners.