

CLINICAL OUTCOMES IN THE PRESENCE AND ABSENCE OF KERATINIZED MUCOSA IN MANDIBULAR GUIDED IMPLANT SURGERIES: A PILOT STUDY WITH A PROPOSAL FOR THE MODIFICATION OF THE TECHNIQUE

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PURPOSE

To test the hypothesis of the outcome of complete arch flapless guided implant surgery mandibular rehabilitations in the presence or absence of a residual band of keratinized mucosa (KM) < 6 mm wide in the vestibular-lingual aspect, with and without a modification of the surgical protocol.

MATERIALS AND METHODS

Thirty-nine patients were included in this study (12 men and 27 women), with a mean age of 62.5 years (range, 42 to 79 years), divided into 3 groups of 13 patients according to the status of residual band of KM: group 1, KM < 6 mm rehabilitated through a modified guided surgical protocol with flap opening to preserve KM; group 2, KM ≥ 6 mm; and group 3, KM < 6 mm; patients from both groups 2 and 3 were rehabilitated through flapless guided implant surgery without modification of the protocol. Group 2 and 3 patients were age- and sex-matched with group 1. Outcome measures were clinical attachment loss (CAL) ≥ 2 mm after 1 year (backward conditional regression), incidence of dehiscences, dental plaque, bleeding, and implant infections. The level of significance chosen was 5%.

RESULTS

Thirty-nine patients with 156 implants were followed for 1 year, and no dropouts occurred. Absence of a residual band of KM ≥ 6 mm in the vestibular-lingual aspect was significantly associated with CAL (odds ratio, 39.1; $P = .036$) and dehiscences ($P = .003$).

CONCLUSIONS

Within the limitations of this study, the absence of a residual band of KM \geq 6 mm wide in the vestibular-lingual aspect in patients rehabilitated in the complete edentulous mandible with flapless guided implant surgery may be associated with CAL and a higher incidence of dehiscences after 1 year of follow-up. This possible association needs to be confirmed in studies with stronger designs and longer follow-ups. (*Quintessence Int* 2013;44:1-9)