Kinesiologic taping reduces morbidity after oral and maxillofacial surgery: a pooled analysis.

Abstract:
Postoperative morbidity is a major disadvantage after oral and maxillofacial (OMF) surgery, often caused by pain, trismus and swelling affecting patients' quality of life. The goal of this study was to examine the effect of kinesiologic taping (KT) on swelling, pain, trismus and patients' satisfaction after OMF surgery. Performing a pooled analysis of 96 patients that were assigned for maxillofacial treatment (midface fractures n = 30, mandibular fractures n = 26, wisdom tooth removal n = 40) divided into treatment either with or without kinesiologic tape application. Tape was applied directly after surgery and maintained for at least 5 d postoperatively. Facial swelling was quantified at six specific points in time using a five-line measurement. Pain and degree of mouth opening was measured. Patients' objective feeling and satisfaction was queried. Application of KT after OMF surgery has a significant influence on the reduction of swelling decreasing the turgidity for 60% during the first 2 d after surgery. Evaluating all patients swelling was significantly lower in the KT treatment group (T2: 63.5 cm ± 4.3; T3: 62.5 cm ± 4.2; T4: 61.6 cm ± 4.2) than in the no-KT group (T2: 67.6 cm ± 5.0; T3: 67.0 cm ± 5.0; T4: 64.8 cm ± 4.8) at T2 (p<0.001), T3 (p<0.001), and T4 (p = 0.001). VAS Pain values were scored significantly lower for the KT group (T1: 2.5 ± 2.0 (p = 0.006); T2: 1.7 ± 2.0 (p<0.001); T3:
1.5 ± 2.3 (p = 0.004); T4: 0.6 ± 1.1 (p = 0.001) compared to the no-KT group (T1: 3.8 ± 2.5; T2: 3.5 ± 2.7; T3: 2.9 ± 2.2; T4: 1.6 ± 1.7). A statistically significant amelioration in mean mouth opening ability was observed in the KT group (T1-BL: -0.08 cm ± 0.49 (p = 0.025); T2-BL: 0.07 cm ± 0.59 (p = 0.012); T3-BL: 0.20 ± 0.63 (p = 0.013); T4-BL: 0.42 ± 0.59 (p = 0.003)) compared to the no-KT group (T1-BL: -0.47 cm ± 0.86; T2-BL: -0.39 cm ± 0.84; T3-BL: -0.24 ± 0.89; T4-BL: -0.13 ± 1.02). KT after OMF surgery is a promising, simple, less traumatic, economical approach free from systemic adverse reaction upgrading patients' quality of life.