Does elastic therapeutic tape reduce postoperative swelling, pain, and trismus after open reduction and internal fixation of mandibular fractures?

The aim of the present study was to investigate whether the application of elastic therapeutic tape (Kinesio Tape [KT]) prevents or decreases swelling, pain, and trismus after open reduction and internal fixation of mandibular fracture, thus improving patients’ postoperative morbidity. To address the research purpose, the investigators designed and implemented an open-label, monocentric, parallel-group, randomized clinical trial. Patients were prospectively assigned for treatment of unilateral mandibular fractures and randomly allocated to receive treatment with or without KT application. KT was applied directly after surgery and maintained for 5 days postoperatively. Facial swelling was quantified using a 5-line measurement at 6 specific time points. Pain score was assessed using a 10-level visual analog scale; mouth opening was measured. In addition, all patients were asked to evaluate overall satisfaction and swelling (2 groups) and the effect of the tape on movement and comfort (KT group only). The study included 26 patients (11 female and 15 male; mean age, 43 yr; standard deviation, 18.5 yr). Application of KT after surgery for mandibular fracture had a statistically significant influence on tissue reaction and swelling, decreasing the incidence of swelling and turgidity by more than 60% during the first 2 days after
surgery. Although KT had no significant influence on pain control, patients in the KT group perceived significantly lower morbidity. The present results showed that KT after open reduction and internal fixation of mandibular fracture is a promising, simple, less traumatic, and economical approach for managing postoperative swelling that is free from systemic adverse reactions, thus improving patients' quality of life.