p-5 Factors affecting marginal and papillary healing following endodontic surgery

Joon-Sun Park*, Il-Young Jung, Chan-Young Lee

Department of Conservative Dentistry, College of Dentistry, Yonsei University

Ⅰ. Objectives

The purpose of the present study was to determine the factors affecting marginal and papillary healing following endodontic surgery.

Ⅱ. Materials and Methods

Ten healthy patients who were scheduled for surgical treatment of persisting apical periodontitis were included in the study. All of them were free of periodontal disease and had intact interdental papillae. The preoperative stone casts were fabricated using impression materials and yellow stone. Two types of horizontal incision (marginal and submarginal) were used to raise the full thickness flap. Following standard root-end resection and filling, the distance between the cementoenamel junction and marginal crestal bone, and the presence or absence of the dehiscence and prosthesis were recorded. The flap closure was achieved with microsurgical sutures. Sutures were removed 7 days after the surgery. The impressions on the experimental sites were taken again at 1 month and 3 months after the surgery. Using these casts, the change of the level of marginal and papillary gingiva was analyzed.

Ⅲ. Results

Complete closure of the wound was achieved in all cases, and the recession of marginal gingiva was significantly occurred in both marginal and submarginal incision groups after the surgery. At the one-month postoperative situation, the gingival recession of marginal incision group and submarginal incision group were 0.50 mm and 0.14 mm, respectively. There was significantly more gingival recession in the marginal incision group.

Ⅳ. Conclusions

The gingival recession was occurred after endodontic surgery, and the marginal incision led to more gingival recession than the submarginal incision.