ABSTRACT

Background. Pericoronitis is a common dental problem in young adults with partial tooth impaction, causing swelling or inflammation of gums and surrounding soft tissues of a partially erupted tooth. The management of this disease is consists of local and systemic medication. Dressing agent was sometimes used as local therapy. Dressing agent contains a combination of various materials. Eugenol is the major composition of this material that related to cytotoxicity. There was a good result on clinical study with the use of dressing agent, but there was no data about histopathological study of pericoronal tissue after dressing agent application. Purpose. The purpose of this study is to compare pericoronal tissue changes in 2 groups of acute pericoronitis patients that were treated with and without dressing agent application by counting fibroblast number and collagen density. Method. An experimental clinical study was conducted on 14 subjects with acute pericoronitis that were divided into 2 groups. First group was treated with irrigation of normal saline and occlusal grinding of upper third molar if needed, and second group were treated with the same treatment and application of dressing agent. Tissue samples were taken during odontectomy that was performed between 9-10 days after treatment and were sent for hystopathologic examination. Results. The independent t-test and mann whitney test with confidence interval 95% showed that there were significant difference in fibroblast number with \((p<0.05)\) and there were no significant difference in collagen density with \((p>0.05)\) between two sample groups. Conclusion. There were significant difference in fibroblast number and no significant difference in collagen density of pericoronal tissue samples that were treated with or without dressing agent application.

Keywords: Acute pericoronitis, Dressing agent, Pericoronal tissue