

Tobacco Use and Its Effect on Dental Extraction: A Review

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Abstract:

This topic gives an over view on effect of tobacco use and its effect on dental extraction.

Smoking most often results in discolorations of teeth and dental restorations. Oral Halitosis, diminished taste and smell acuity are common side effects of smoking.⁽¹⁾

Periodontal disease is increased in both prevalence and severity in smoking individuals. Smoking cessation may halt disease progression and improve the outcome of not only periodontal treatment, overall dental procedures.

KEYWORDS: TOBACCO, SMOKING, TOOTH EXTRACTION

Introduction:

Cigarette smoke contains chemical toxins that can delay healing process and be dangerous to gum and mouth tissues⁽²⁾. When cigarette smoke is exposed to healing gums to the toxins present in it can result in serious complications, including dry socket, inflammation, or infection.

Tooth extraction is the most common procedure done in oral surgery. healing after tooth extraction is also important and of continuing interest to the oral and maxillofacial surgeon. Healing process consists of 4 overlapping stages⁽¹³⁾, which involves clotting, replacement of the blood clot with healthy granulation tissue, gradual replacement of the granulation tissue by connective tissue and young

preosseous tissue, and finally bone trabeculae filling the alveolar socket. Some of the important factors affecting the healing process are the presence of infection, the site of extraction, use of certain medicines, the age and health of the patient, and smoking⁽⁴⁾.

Cigarette smoking/ use of tobacco for long term has been suspected to adversely affect intraoral wound healing for a long time. the precise mechanisms by which cigarette smoking interferes with wound healing are not completely understood⁽⁵⁾. Carbon monoxide and nicotine in the smoke are thought to play primary roles in the adverse effects of cigarette smoking. Carbon monoxide combines with hemoglobin easier than oxygen, and the reduction in oxyhaemoglobin can result in cellular hypoxia^(11,12).

The negative effects of nicotine are believed to be associated with vasoconstriction causing a reduction in the microcirculation to the tissues. Nicotine also reduces prostaglandin production and stimulates the carotid chemoreceptors⁽⁶⁾. As a result, catecholamines remain free. nicotine also inhibits immunohistochemically proliferation of fibroblasts and macrophages^(14,15). The aim of this article is to discuss influence of cigarette smoking on socket healing after tooth extraction.

Effect of tobacco use in dental procedures:

Use of Tobacco adversely affects oral health outcomes of almost all routine dental procedures. After dental extractions, the fibrinolytic activity induced by

smoking decreases the alveolar blood supply and leads to a painful condition called dry socket (alveolar osteitis), commonly seen in smokers⁽⁷⁾. patients should be advised to not to smoke after dental procedure since it affects the overall healing process that required to occur after dental procedure. Smoking not only affects the post extraction healing several articles has been reported its effect after third molar extraction, dental implants, periapical surgery⁽⁸⁾. though there is no significant difference in pain, swelling and trismus in between the non- smokers and smokers after third molar extraction. Pain is very much high on the first post-operative day in surgical extraction of third molar present in smokers than the non-smokers^(9,10). smokers tend to have less clinical signs of inflammation and gingival bleeding compared to non-smokers. The clinical signs of inflammation may be attributed to the effect of nicotine that contributes to local vasoconstriction, reduced blood flow, and edema.

Conclusion:

Some article reported that pain score was consistently higher among smokers than in non-smokers. The differences in patient-reported with complications (pain, bleeding, and swelling) between smokers and non-smokers undergoing minor oral surgical procedures disappeared after a week. Though Trismus and

infection showed no significant differences according to smoking status it is advisable for the patients not to smoke for oral health and overall health and well-being.hence patients are advised not to smoke after dental procedures as it affects the outcome of the procedure as well.

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