

A Retrospective Study of Incidence of the Post Surgical Dry Socket with Relation to Third Molar

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ABSTRACT

Background: The most common local complication arising after a procedure of extraction is dry socket. It can be defined as a post-operative pain at the extraction site increasing in severity at any time between 1 and 3 days after the extraction accompanied by a totally or partially disintegrated clot of blood. The present study was done retrospectively at the oral surgery department, Awadh Dental College, Jamshedpur. Records of the last 2 years of patients undergone extraction of third molars were considered for the study. Dry socket was diagnosed based on absence of clot in the socket and presence of severe pain from the socket. Total 445 third molar surgical extractions were carried out in the department over a period of 2 years. the patients were of age group 18 to 45 years. Out of these, records of 355 patients were available and considered for the study. In these patients, 428 third molar extractions were done surgically. 22 (5.03%) patients were presented with features of dry socket. The incidence of dry socket was more in case of smokers (14) patients as compared to non-smokers (08) patients. High incidence of dry socket was more in case of surgical extraction of mandibular third molar than that of maxillary third molar. Males were seen showing higher rate of dry socket incidence than females.

Keywords: Dry socket , extraction , third molar.

INTRODUCTION

The most common local complication arising after a procedure of extraction is dry socket. It can be defined as a post-operative pain at the extraction site increasing in severity at any time between 1 and 3 days after the extraction accompanied by a totally or partially disintegrated clot of blood within the alveolar socket with or without halitosis. [1]. Dry socket has multifactorial etiology and risk factors which includes age, sex, habit of tobacco consumption, bacterial contamination, traumatic extraction etc. [2]. The occurrence of dry socket is between 1 and 4% of all tooth extractions, which hampers the normal well - being of patient due to involved sharp pain. [3] The present study was done to study the incidence rate of dry socket and its associated risk factors.

MATERIALS AND METHODS

The study was done retrospectively at the oral surgery department, Awadh Dental College, Jamshedpur. Ethical clearance was obtained prior to the start of study. Records of the last 2 years of patients undergone extraction of third molars were considered for the study. The inclusion criteria were patients who had undergone surgical extraction of third molar.

The data collected were complete case history of patients included in study, oral hygiene status, reasons for extraction, systemic factors, drugs prescribed and incidence of dry socket (diagnosed by examination of socket and presence of severe pain in relation to extraction site).

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RESULTS

Total 445 third molar surgical extractions were carried out in department over a period of 2 years. The patients were of age group 18 to 45 years. Out of these, records of 355 patients were available and considered for the study. In these patients, 428 molar extractions were done surgically. 22 (5.03%) patients presented with features of dry socket. Patients were presented with various complaints. eight patients were presented with complain of empty socket, which suggest the displacement of blood clot. Bare bone was visible in 5 patients, while 8 patients were presented with halitosis (Table 1).

Table 1: Number of patients of dry socket presented with various complaints

Examination of dry socket	Number of patients with dry socket
Empty socket	8
Bare bone	5
Halitosis	8
Others	1
Total	22

Table 2: Incidence of dry socket in case of smokers and non-smokers

Smoking Habit	Total patients	No. of patients with dry socket
Smoker	83	14
Non-smoker	272	8
Total	355	22

Table 3: Incidence of dry socket in surgical extraction of mandibular and maxillary third molars

Tooth	Total patients	Number of patients with dry socket
Maxillary third molars	201	7
Mandibular third molars	227	15
Total	428	22

Table 4: Incidence of dry socket in case of male and female patients

Gender	Total patients	Number of patients with dry socket
Males	195	13
Females	160	9
Total	355	22

In the present study, 83 patients were having the habit of smoking either bidi or cigarette or any other form of smoking. The incidence of dry socket was more in case of smokers (14 patients) as compared to non-smokers (08 patients). (Table 2)

227 mandibular third molars were removed surgically in present study, out of these 15 patients came with complain of dry socket. thus, high incidence of dry socket is seen in case of surgical extraction of mandibular third molar than that of maxillary third molar (Table 3). Males were seen to show higher rate of dry socket incidence than females. (Table 4)

DISCUSSION

Crawford in 1986 first explained the risk factors and clinical features related to dry socket. The incidence of dry socket was most commonly related to surgical extraction of impacted mandibular third molars.[2] Dry socket is noticed mostly 2-4 days after tooth extraction and its complications can last several days if not intervened . The commonly noted clinical features of dry socket are severe throbbing pain from the extraction site which then advances to referred pain involving adjacent areas, necrosis and disintegration of blood clot at extraction site, empty alveolus yellowish layer of necrotic tissue and denuded bone surfaces. [2,4,5]

The main reason hypothesized for its occurrence is disintegration of blood clot followed by trauma and infection. [2]. Blood clot is an important part of healing process, so its disruption leads to delay in the healing process and the exposed bare bone which is visible gives the name DRY SOCKET. The incidence of dry socket increases in relation to mandibular third molar surgeries. [3]. The reason for this is that mandibular third molar extractions are the most traumatic and more susceptible to bacterial infection. [2]

Though this condition is self-limiting, the excruciating pain involved requires intervention. Conventional methods to treat dry socket include rinse, gel, paste, powder and mouth wash. [6,7]

Local treatments to the socket include irrigation with 0.12-0.2% chlorhexidine, obtundent materials to be used as dressings like zinc oxide eugenol, lidocaine gel and various combination therapies. Prescribed antibiotics and drug delivery systems are also an effective way to prevent and treat incidence of dry socket. [8,9]

CONCLUSION

In the present study, high incidence of dry socket was observed in patients of smokers than non-smokers and in patients after mandibular third molar surgical removal. Hence care should be taken in these patients to avoid the formation of dry socket.

CONFLICT OF INTEREST

No potential conflict of interest relevant to this article was reported.

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