

Original Research

DRY SOCKET PREVALENCE FOLLOWING THIRD MOLAR EXTRACTION

Sarish Latief¹, Rehmat Parmar², Nidhi Bhandari², Gagandeep Singh³

¹PG Student, Department of oral surgery, BRS Dental College and general hospital, Haryana

²BDS, Private consultant, Punjab

³Assistant Professor, Department of oral surgery, Genesis Institute of Dental Sciences & Research, Punjab

ABSTRACT:

Background: Dry socket is a common post-extraction complication. The present study was conducted to assess dry socket incidence after mandibular third molar extraction. **Material & methods:** 180 patients underwent mandibular third molar extraction in last 2 months were recorded. Oral hygiene status, reasons for extractions, teeth extracted, systemic factors and drugs prescribed was recorded. **Results:** Out of 180 patients, males were 100 and females were 80. Out of 70 smokers, 13 had dry sockets. 8 non-smokers, 12 males, 9 females, 7 healthy and 14 patients with systemic diseases had dry sockets. The difference was significant ($P < 0.05$). **Conclusion:** Incidence of dry socket were higher among females, smokers and patients with systemic diseases.

Key words: Alveolar osteitis, dry socket, Incidence

Received: 16 March, 2021

Accepted: 22 March, 2021

Corresponding author: Dr. Sarish Latief, PG Student, Department of oral surgery, BRS Dental College and general hospital, Haryana

This article may be cited as: Latief S, Parmar R, Bhandari N, Singh G. Dry socket prevalence following third molar extraction. Int J Res Health Allied Sci 2021; 7(3):23-25.

INTRODUCTION

Dry socket is a common post-extraction complication. It can be defined as a postoperative 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 The incidence of "Dry socket" has probably been seen since the practice of exodontia began. It is unpleasant and most common local complication after surgical removal of tooth. Etiology of dry socket is often multifactorial and risk factors like sex, age, tobacco use, infection of alveolus, vasoconstriction activity of the local anesthetic agents, imbalance of vitamin levels, contraceptive pills, smoking, and trauma, radiographic difficulty of extraction etc. can be present.²

Severe, debilitating, constant pain that continues through the night, becoming most intense at 72 hours post-extraction are common symptoms in patients. It

can be associated with foul taste and halitosis. The pain responds poorly to over-the-counter analgesic medication.³ Clinically, an empty socket (lacking a blood clot) with exposed bone is seen. Other symptoms include low grade fever and regional lymphadenopathy.⁴ The clinical manifestations of dry socket are necrosis and disintegration of the originally formed blood clot, empty alveolus, with partially or completely denuded, covered by a greyish yellow layer of detritus and necrotic tissues and very sensitive bone surfaces. The severe throbbing pain from the extraction socket radiates in different adjacent parts or organs.⁵ The present study was conducted to assess dry socket incidence after mandibular third molar extraction.

MATERIAL & METHODS

The present retrospective study was conducted among 180 patients underwent mandibular third molar extraction in last 2 months. All patients were informed

regarding the study and their written consent was obtained.

Data such as name, age, gender etc. was recorded. Data regarding complication such as dry socket was recruited from departmental record. Oral hygiene status, reasons for extractions, teeth extracted, systemic factors and drugs prescribed was recorded. Results thus obtained were subjected to statistical analysis. P value less than 0.05 was considered significant.

RESULTS

Table I Distribution of patients

Total- 180		
Gender	Males	Females
Number	100	80

Table I shows that out of 180 patients, males were 100 and females were 80. Table II, graph I shows that out of 70 smokers, 13 had dry sockets. 8 non smokers, 12 males, 9 females, 7 healthy and 14 patients with systemic diseases had dry sockets. The difference was significant (P< 0.05).

DISCUSSION

A dry socket is a painful, foul smelling postoperative condition that develops during the course of the first several days after a tooth extraction. An equivalent term for a dry socket is "alveolar osteitis." Dry sockets occur

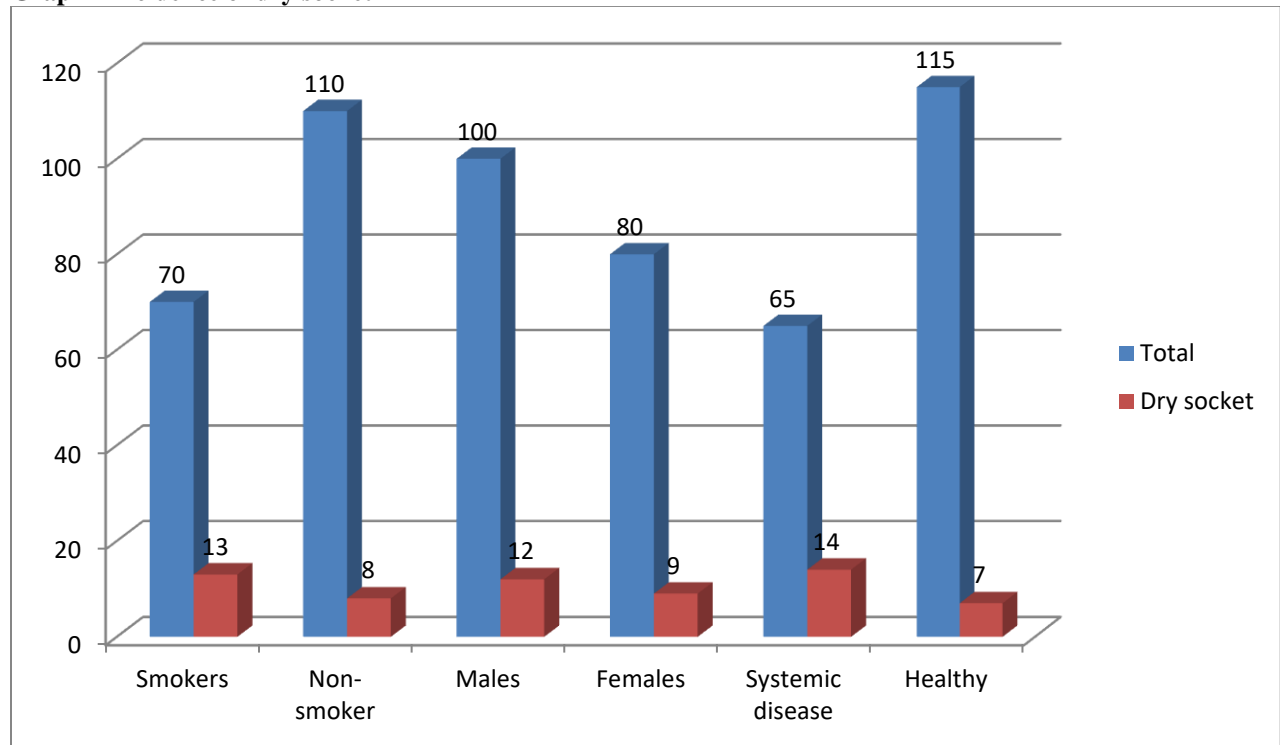
when either an adequate blood clot has failed to form in the extracted tooth's socket or else the blood clot that did form has been dislodged and lost.⁶

Table II Incidence of dry socket

Parameters	Total	Dry socket	P value
Smokers	70	13	0.04
Non- smoker	110	8	
Males	100	12	0.03
Females	80	9	
Systemic disease	65	14	0.01
Healthy	115	7	

Since the formation of a blood clot is an important part of the healing process, the healing of the extraction site is disrupted and delayed.⁷ The term "dry socket" comes from the appearance of the wound. Since no blood clot is present, exposed bare bone is visible. A dry socket's symptoms typically include: A dull, often throbbing, pain that doesn't first appear until three or four days after the tooth has been extracted. The pain can be moderate to quite severe. The socket typically has a foul odor or taste coming from it.⁸ Although there are risk factors that may predispose a dental patient to the formation of a dry socket, knowing who will actually develop one is totally unpredictable.

Graph I Incidence of dry socket



Dentists typically advise their patients that after having a tooth pulled they should, Place firm biting pressure on the gauze packing that has been placed over their extraction site for the next 30 to (preferably) 60 minutes. Doing so will help to insure that a proper blood clot has a chance to form in their tooth's empty socket.⁹ The present study was conducted to assess dry socket incidence after mandibular third molar extraction.

In present study, out of 180 patients, males were 100 and females were 80. Kumar et al¹⁰ evaluated incidence of dry socket following extraction of third molars. Information regarding the type and time period of extraction, interval between presentation, management given, and its outcome will be retrieved and analyzed to study the incidence of dry socket after third molar extraction. One of the most common postoperative complications following the extraction of third molar is a condition known as dry socket. Although the etiology of dry socket is debated, it is probably multi-factorial, and its pathogenesis remains unknown.

We found that out of 70 smokers, 13 had dry sockets. 8 non smokers, 12 males, 9 females, 7 healthy and 14 patients with systemic diseases had dry sockets. Qadus et al¹¹ assessed the prevalence of dry socket in 100 patients in association with gender, site and age. A comprehensive proforma was formulated and filled for comparison of gender, age and site in relation to dry socket. Females were 2.37 times more prone to dry socket as compared to males. Whereas, dry socket was found 2.94 times more common in mandibular extractions as compared to maxillary. It was less common in young age group (18%) as compared to older patients (67%).

Purohit et al¹² in their study dry socket was diagnosed based on the absence of clot in the socket and presence of severe pain from the socket. Total 293 third molar surgical extractions were carried out in the department over a period of 2 years. The patients were of the age group of 18 to 45 years. Out of these, records of 256 patients were available and considered for the study. In these 256 patients, 278 third molar extractions were done surgically. In these 178 extractions of third molar, 12 (4.09%) patients were presented with the features of dry socket. The incidence of dry socket was more in case of smokers (08 patients) as compared to non-smokers (04 patients). High incidence of the dry socket is seen in case of surgical extraction of the mandibular third molar than that of the maxillary third molar. Male and females were seen showing almost equal rate of the dry socket incidence. The high incidence of dry socket was observed in patients of smokers after mandibular third molar surgical removal.

CONCLUSION

Authors found that incidence of dry socket were higher among females, smokers and patients with systemic diseases.

REFERENCES

1. Meechan JG, Macgregor ID, Rogers SN, Hobson RS, Bate JP, Dennison M. The effect of smoking on immediate post-extraction socket filling with blood and on the incidence of painful socket. *Br J Oral Maxillofac Surg* 1988;26:402-9.
2. Blum IR. Contemporary views on dry socket (alveolar osteitis): a clinical appraisal of standardization, aetiopathogenesis and management: a critical review. *Int J Oral Maxillofac Surg* 2002;31:309-17.
3. Akinbami BO, Godspower T. Dry socket: incidence, clinical features, and predisposing factors. *International journal of dentistry*. 2014 Jun 2;2014.
4. Torres-Lagares D, Infante-Cossio P, GutierrezPerez JL, Romero-Ruiz MM, Garcia-Calderon M, Serrera-Figallo MA. Intra-alveolar Chlorhexidine gel for the prevention of dry socket in mandibular third molar surgery. A pilot study. *Med Oral Patol Oral Cir Bucal*. 2006;11:E179-84.
5. Requena-Calla S, Funes-Rumiche I. Effectiveness of intra-alveolar chlorhexidine gel in reducing dry socket following surgical extraction of lower third molars. A pilot study. *J Clin Exp Dent*. 2016;8(2):e160-3.
5. Shaban B, Eshghpour M, Mirjani S. Effect of Oral Contraceptive Drugs on the Incidence of Dry Socket after Surgical Extraction of Mandibular Third Molar. *IOSR Journal of Dental and Medical Sciences*. 2016;15(4):62-4.
6. Inamdar MN, Chauhan R, Mapare SA, Goswami RP, Goswami Y, Khadri SF. Prevention of dry socket using chlorhexidine gel and ornidazole gel in impacted mandibular third molar: A comparative randomized prospective study on 30 patients. *J Int Oral Health*. 2015;7(11):41-46.
7. H. Momeni, S. Shahnasari, and Z. Hamzeheil, "Evaluation of relative distribution and risk factors in patients with dry socket referring to Yazd dental clinics," *Dental Research Journal*, vol.8, supplement 1, pp. S84–S87, 2011.
8. Nig Q *J Hosp Med*. 2007 Oct-Dec;17(4):126-30. Ogunlewe MO1, Adeyemo WL, Ladeinde AL, Taiwo OA. Department of Oral and Maxillofacial Surgery, College of Medicine, University of Lagos, Lagos, Nigeria
9. Kumar MA, Gheena S. Incidence of dry socket after third molar extraction. *Journal of Pharmaceutical Sciences and Research*. 2015 Jul 1;7(7):451.
10. Qadus A, Qayyum Z, Katpar S, SALAM SA. Prevalence of dry socket related to gender and site. *Pakistan Oral & Dental Journal*. 2012 Jun 1;32(1).
11. Purohit JN. Incidence of dry socket after surgical removal of the third molar: a retrospective study. *Sch J Dent Sci*. 2016;3(10):287-9.