

# Knowledge about Post Extraction Complications among Undergraduate Dental Students

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## Abstract

### Objective:

To evaluate the knowledge of dental students regarding post extraction complications and their management.

### Methods:

A random sample of 120 dental students was taken. A short pretested questionnaire of 13 questions was given to them. The questionnaire was designed to assess their basic knowledge about the post extraction complications and its management. Data obtained were tabulated, statistically analyzed and results obtained.

### Results:

59.1% of dental students reported bleeding to be the most common post-operative complication followed by Pain 19.1%, swelling 11.67% and dry socket which is 10 %. 78.3% of dental students agreed that thorough medical history can be useful for treating complications. 60% of dental students use gelatin sponge for achieving haemostasis. Majority of students were aware that displacement of tooth into maxillary sinus is highly seen during extraction of maxillary 1<sup>st</sup> molar.

### Conclusion:

This study revealed that knowledge about post extraction complications among most of the undergraduate dental students was adequate. Good Quality of treatment can be maintained, if future dentists have a good knowledge of post extraction complications and the methods of preventing and managing them.

**Keywords-** Bleeding, dry socket, gelfoam, pain, extraction, complications

## INTRODUCTION

Extraction is the most common procedure done in dentistry in india, and a knowledge about post extraction complications and their management can prevent the occurrence of untoward sequelae following extraction. Hence this issue is very significant, as it is concerned with the quality of treatment. The rationale of our study is to assess the knowledge regarding post extraction complications among undergraduate dental students of our institution, which will enable us to make necessary changes in the teaching curriculum as implicated.

## MATERIALS AND METHODS

This study was conducted during the academic year in february 2016 among the dental students who were attending the Final year, and internship (fifth year trainee) of undergraduate program in Saveetha Dental College and Hospital, Saveetha university, Chennai. 120 students were randomly enrolled in the study, who were present at the day of study.

## Questionnaire

A validated short re-tested questionnaire of 13 questions was distributed among all the students of the study. The questionnaire was designed at the aim of collecting the data about the complications following extraction and their management. Data extracted were statistically analyzed using SPSS and results obtained.

## QUESTIONNAIRE:

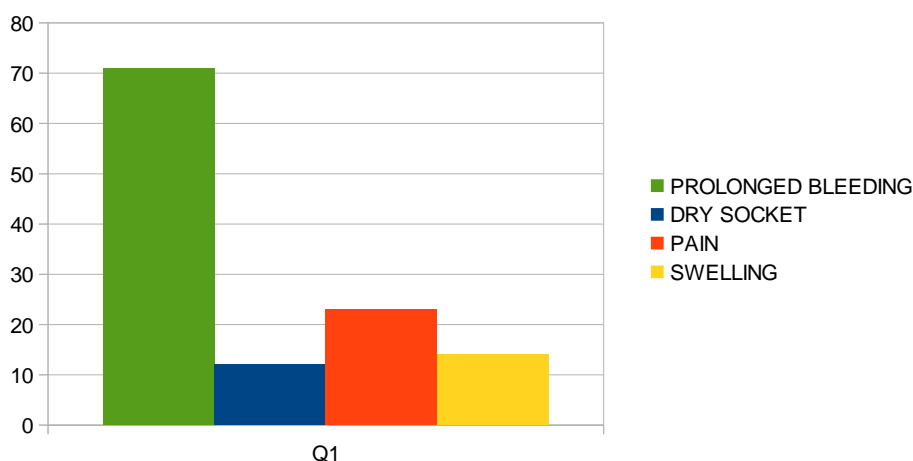
### Knowledge about post extraction complications among undergraduate dental students

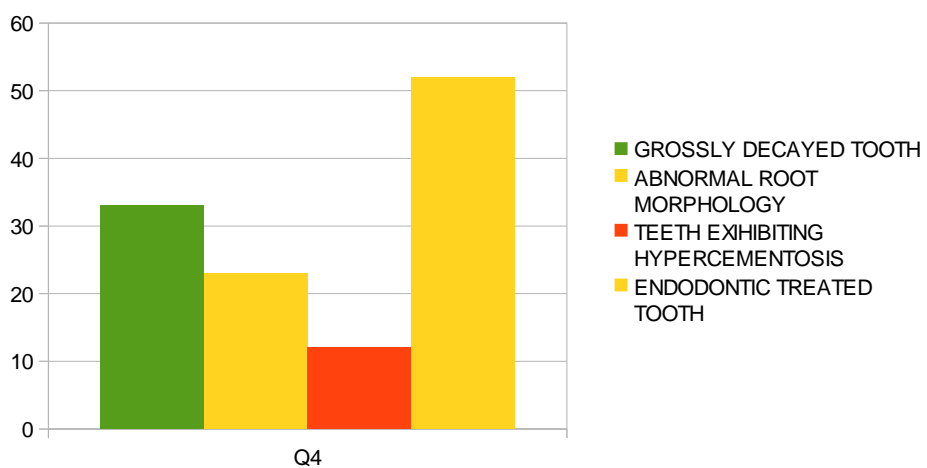
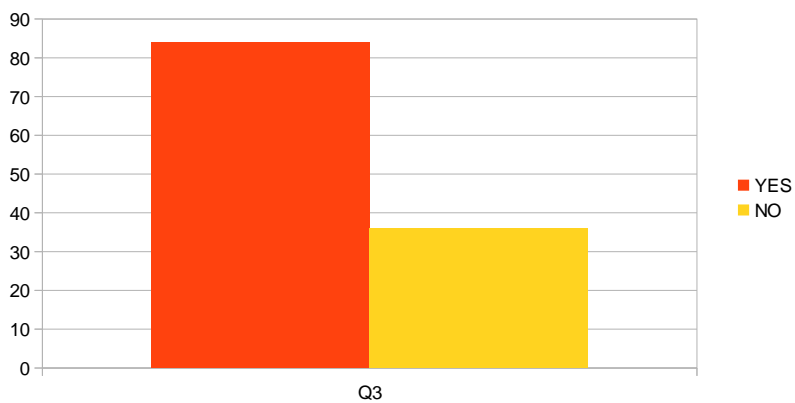
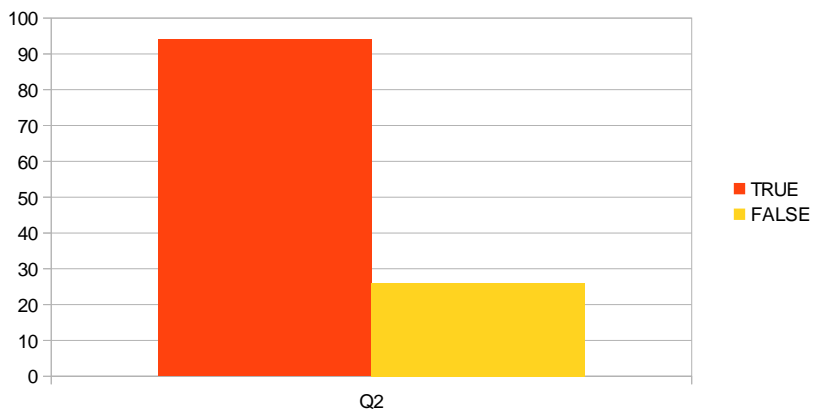
- 1)which is the most common post extraction complication?  
A)Prolonged bleeding  
B)Dry socket  
C)Pain  
D swelling
- 2)Having a thorough medical history prior to extraction will allow the dentist to better deal with the complication that may arise.  
A)True  
B)False
- 3)If and when any complication occur, it is always recommended to explain the situation to patient ?  
A)yes  
B)No
- 4)which of condition make the extraction more difficult?  
A)grossly decayed tooth  
B)Abnormal root morphology  
C)teeth exhibiting hypercementosis  
D)Endodontic treated tooth

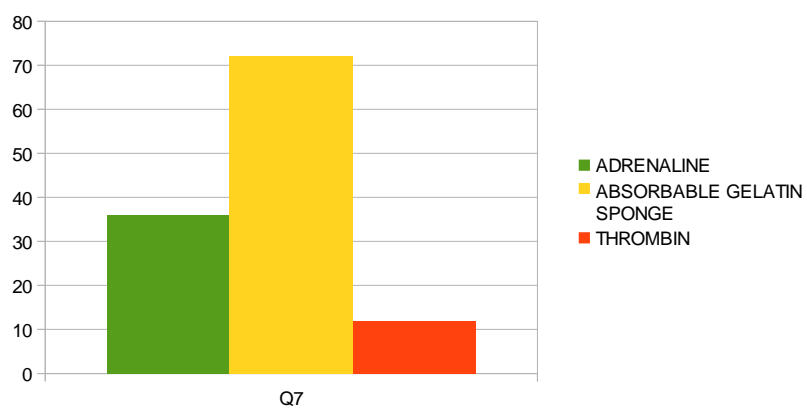
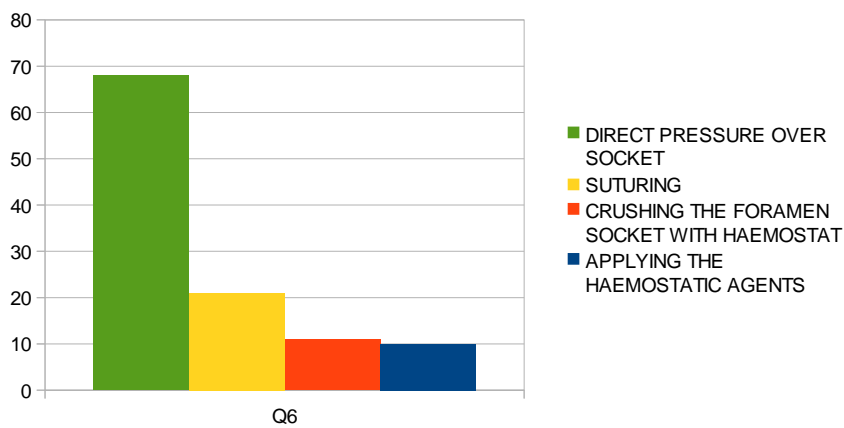
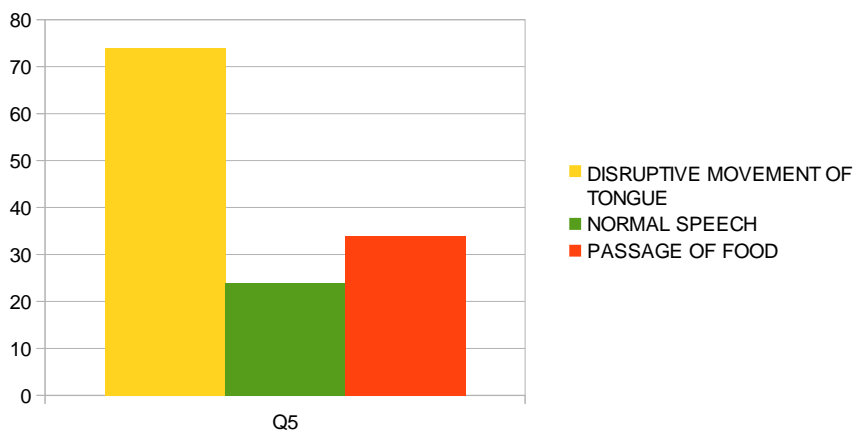
- 5)which of the condition can disturb clot?  
 A)Disruptive movement of the tongue  
 B)passage of food  
 C)normal speech
- 6)How do you manage prolonged bleeding primarily?  
 A) Direct pressure over the socket  
 B)suturing  
 C)crushing the foramen socket with haemostat  
 D) applying hemostatic agents
- 7)In case of prolonged bleeding, what is the most commonly used hemostatic agent?  
 A)Adrenaline  
 B)Absorbable gelatin sponge  
 C)thrombin
- 8)Ecchymosis is most commonly seen in?  
 A)Elderly patients  
 B)Younger patients  
 C)All age group
- 9)what is the best way to treat Ecchymosis?  
 A)Application of moist heat  
 B)Do nothing and wait for a week  
 C)Application of cold  
 D)advise mouth opening exercises
- 10)Which of the following conditions can favour dry socket after extraction?  
 A)women taking oral contraceptive  
 B)patient with uncontrolled diabetes mellitus  
 C)patient age between 30 to 40  
 D )all of the above
- 11)what is the best way to prevent dry socket?  
 A)Atraumatic extraction  
 B)suturing wide open sockets after extraction  
 C)use of anti microbial mouth rinse (chlorohexidene ) before extraction  
 D)All of the above
- 12)Does smoking has any effect on incidence of dry socket?  
 A)yes  
 B)no  
 C)don't know
- 13)Displacement of Tooth into the maxillary sinus is highly seen during the extraction of  
 A)Maxillary 1st molar  
 B)maxillary 2nd molar  
 C maxillary 3rd molar  
 D)all of the above

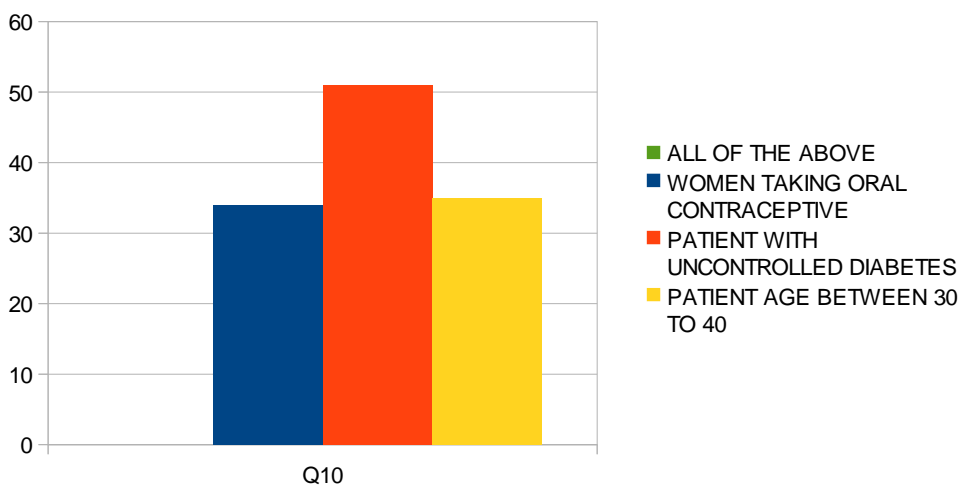
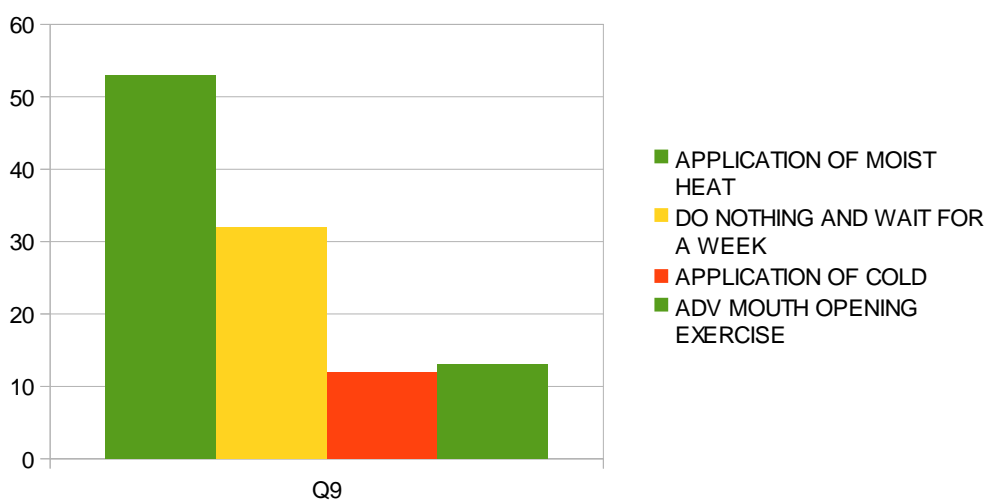
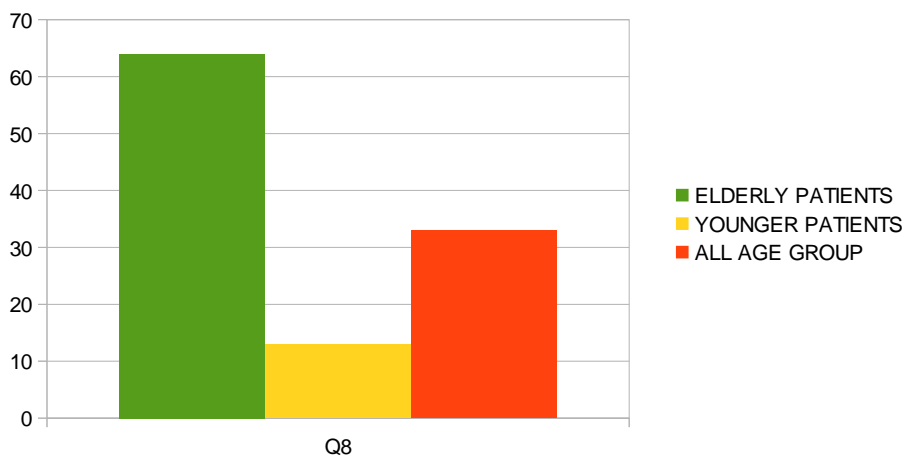
**RESULTS**

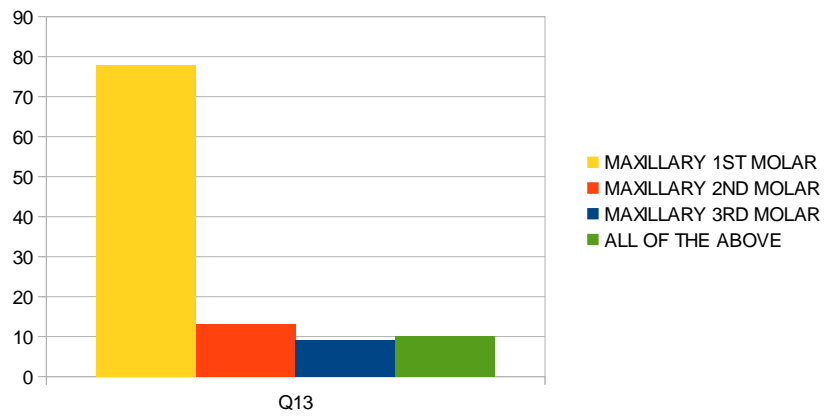
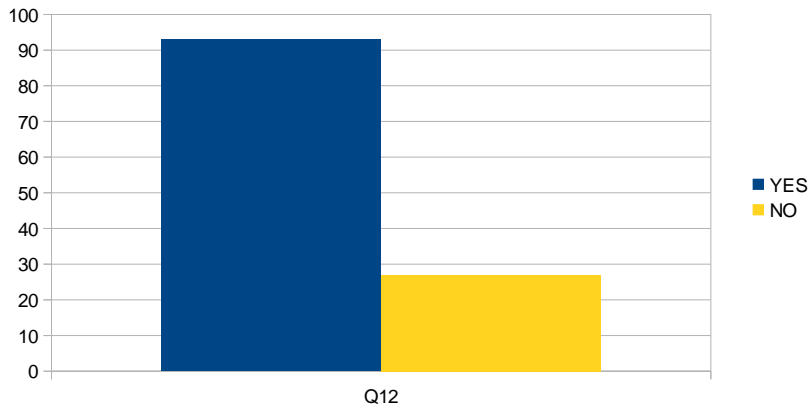
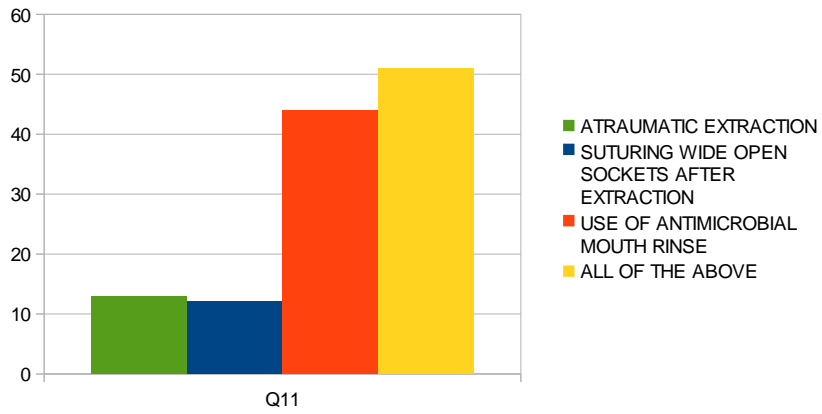
In this study, about 22.3 percent of dental students have seen complications after extraction in the dental office. 59.1% of dental students reported bleeding to be the most common post-operative complication followed by Pain 19.1%, swelling 11.67% and dry socket which is 10 %. 78.3% of dental students agreed that thorough medical history can be useful for treating complications. 60% of dental students use gelatin sponge for achieving haemostasis. 44.1% of dental students apply moist heat for treating ecchymosis.











## DISCUSSION

Difficulties with extractions and complications are unpredictable.[1] Having a thorough medical history prior to surgery will allow the dentist to better deal with the complications that may arise and the dentist should be certain to always follow proper surgical techniques and know limitations prior to beginning any extraction.[2]

The most common complication following dental extraction is prolonged bleeding. Once the tooth is removed, the socket should be inspected for the presence of any specific bleeding. If there is no blood vessel tear in the extraction field, complete haemostasis can be achieved. If not, adequate pressure over the extraction socket can assist in achieving hemostasis. Bleeding from isolated vessels within the bone can occur and treatment involves crushing of the foramen socket and application of bone wax.[3]

Gelfoam is one of the most commonly employed agents for the control of bleeding. It is a porous, pliable sponge made from dried and sterilized porcine skin gelatin[4,5]. Gelfoam's mode of action is not completely understood, but unlike collagen, it is believed to be related to formation of a mechanical matrix that facilitates clotting rather than affecting the blood-clotting mechanism.[6,7]. Gelfoam liquefies in one week and is completely resorbed in 4 to 6 weeks.[8] According to our study, it has been reported that 60% of dental students use gelatin sponge for controlling prolonged bleeding.

The most frequently reported sequelae observed after any surgical procedure was swelling of the soft tissues around the operation site which often persists for 48hrs and has been reported in 18.8% patients. Complications reported most commonly after any form of surgery included post-operative bleeding 1.7%, hematoma 1.7%, post-operative pain 1.5% and purulent discharge 1.5% [9]

The next complication after extraction is dry socket. The incidence of dry socket has been reported in the literature by many investigators and ranges between .5% to 68.4%. The average is approximately 3% of all extractions.[10] Most cases of dry socket occurs between the ages of 20 and 40.[11] According to our study it has been reported that only 29.16% patients between age 30 to 40 had dry socket. Smokers have more incidence of dry socket after extraction than non smokers. Our study has reported, 77.5 % percent of dry socket occurrence in smokers.

Ecchymosis is the next common complication following tooth extraction. It usually occurs in elderly patients. The best way to treat ecchymosis is moist heat application.[11,12] But according to our study only 44.16% of dental students use moist heat application for management of ecchymosis. Majority of students were aware that displacement of tooth into maxillary sinus is highly seen during extraction of maxillary 1<sup>st</sup> molar.

## CONCLUSION

This study revealed that knowledge about post extraction complications among most of the undergraduate dental students was adequate. Good Quality of treatment can be maintained, if future dentists have a good knowledge of post extraction complications and the methods of preventing and managing them. It is the duty of dentists to give proper oral health education and insist the patients to follow the post operative instructions promptly, thereby occurrence of any untoward postoperative sequelae can be prevented.

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