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Perception of exodontia among dentists – A questionnaire survey

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Abstract

Aim: The aim and objective of the study is toassess the most difficult tooth to extract and the frequent complications faced by the dentists during dental extraction, the instruments used forextraction of upper and lower third molar, and the preference of antibiotics and analgesic by the dentists. **Materials and Methods:** A surveyhad been conducted among 50 dentists to assess the perception of exodontia. Questionnaire survey which includes nine questions. The analysis was statistically analyzed and represented with bar graph diagram. **Results:** Among 50 dentists, 13 dentists (*P* = 0.069) that the most difficult tooth to extract according to them was upper left second molar and another 13 dentists (*P* = 0.069) opted that upper left third molar was the most difficult tooth to extract. Root fracture is the most common complication according the dentists conducted in the survey (*P* = 0.015). Cryers are mostly been selected during the extraction of upper third molar (*P* = 0.126) and Coupland elevators are mostly used for exodontiaof lower third molar (*P* = 0.713). The normal blood glucose level range to select patients for extraction lies mostly on 70–110 mg/dL where41 dentists among 50 of them opted for this range (*P* = 0.152). **Conclusion:** Our study answers the difficulties andcommon questionable issues that arise in dental extraction. Awareness must be created about the medical issues like normal blood pressure range among dentists to be increased.

Keywords: *Anaesthesia, assessment, dentists, exodontia, instruments, perception, technique*

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INTRODUCTION

Tooth extraction is one of the dental treatments which shouldbe considered the last option. A decrease in the number of teethmay result in poor dietary habit and deterioration of quality oflife.[1] The number of extracted teeth can serve as an indicatorof socioeconomic and oral hygiene level.[2] Extraction of permanent teeth is performed for several reasons including dental caries, periodontal disease, orthodontic reasons, impacted teeth, failed dental treatment, prosthetic indications, and other reasons.

An understanding of the reasons why teeth are extracted is essential to improve oral health outcomes. A large numberof cross-sectional studies have investigated for tooth loss in different countries. Dental caries was the main cause for tooth loss,[3-9] but a few studies revealed that a greater proportion of tooth extractions were due to periodontal disease.[10-12] Extraction of teeth is the most common surgical procedure carried out in the dental surgery setting by the practicing dental surgeon.[13] From a historical perspective, dental extractions have been used to treat a variety of diseased conditions, and as a method of severe punishment or torture to obtain forcedconfessions from suspected criminals.[13-15] Furthermore, before the advent of antibiotics, chronic tooth infections weresometimes linked to a variety of health-related problems andremoval of such diseased tooth was therefore a common treatment option for various medical conditions.[14]

Similarly,it was once a common practice to remove the front teeth of institutionalized psychiatric patients who had a history of biting.[15] Tooth mortality, which is mainly a reflection of untreated dental caries and periodontal disease, is consideredas a crude but useful measure for the dental status of a community.[16] The causes of tooth extractions had large geographical and cultural differences between various regions in a country and from one country to another.[6, 16] Extraction ofteeth is the most common procedure carried out in oral surgery clinics. The final consequence of most dentoalveolar diseases is tooth loss, mostly through routine tooth extraction.[17] Reasonsfor routine tooth extractions have been widely reported in themedical literature.[1,12,17-19] In addition, postoperative pain and discomfort, loss day at work as well as healing complicationshave been well reported in the immediate postoperative periodfollowing nonsurgical (routine) tooth extraction.[20-22]

MATERIALS AND METHODS

Study design and Sample

To address the research purpose, a survey study has been implemented by conducting a questionnaire survey which contains nine questions. All the questions were most relevantfor the perception of exodontia. The sample size for this studyis 50. The questionnaire survey was then distributed among 50 dentists in Private Dental College in the department of oral and maxillofacial surgery. The participants answered the survey without any bias and after the survey was over, data were collected and statistically analyzed, and the results weretabulated [Questionnare 1].

Data analysis

To analyze the data, counts and tabulation were calculated. Theresults were obtained for survey responses and were estimatedaccording to the study. Bar charts were used to present the results.

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RESULTS

Figure 1 shows that most difficult teeth to extract is 27. The most complication encountered during extraction is bleedingand the most commonly used instrument for extraction of upper third molar and lower third molar will be cryersand Coupland elevators respectively. (refer Figures 2-4). The normal blood glucose level and blood pressure range preferred by the dentists will be 70-110mg/dl and 120/80 to 160/94 mmhg respectively. (refer Figures 5 and 6). The mostpreferred antibiotics for therapeutic extraction, dental alveolar abscess will be broad spectrum antibiotics and metronidazole,penicillin (refer Figures 7 and 9). Most common wayspreferred when LA doesn't work will be intra- ligament injection (refer Figure 8).

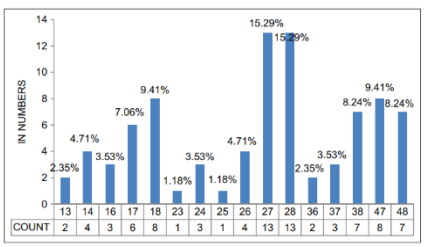

Figure 1 : Results showing the most difficult tooth to extract

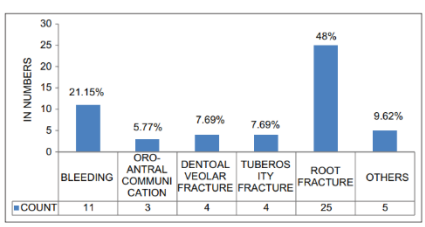

Figure 2 : Bargraph showing the most common complication encountered

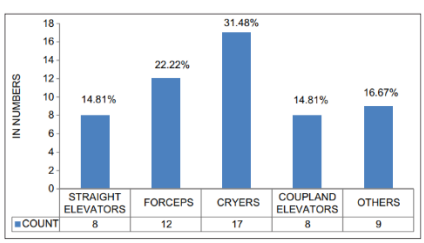

Figure 3 : Bar graph representing most commonly used instrument for extraction of upper third molar

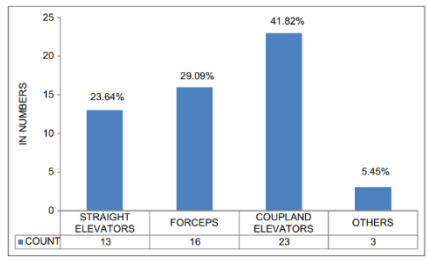

Figure 4 : Bar graph representing most commonly used instrument for extraction of lower third molar

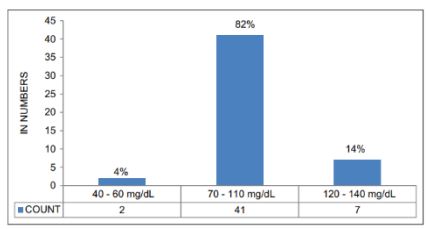

Figure 5 : Bar graph showing normal blood glucose level preferred for extraction by the dentists

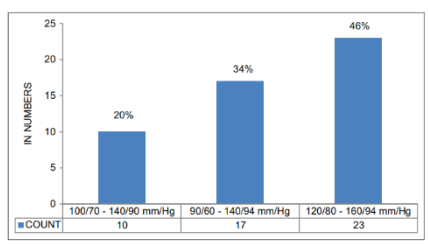

Figure 6 : Bar graph showing normal blood glucose level preferred for extraction

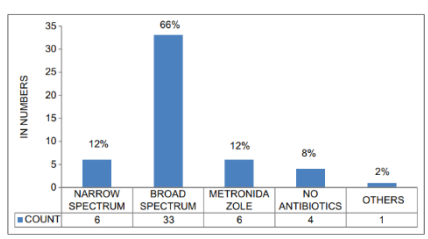

Figure 7 : Bar graph showing most preferred antibiotic in therapeutic extraction

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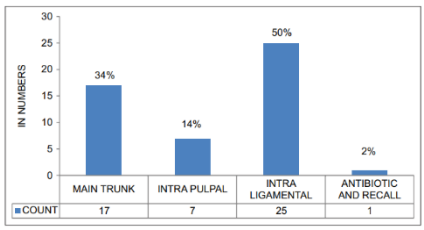

Figure 8 : Bar graph showing most preferred ways when local anaesthesia doesn't work

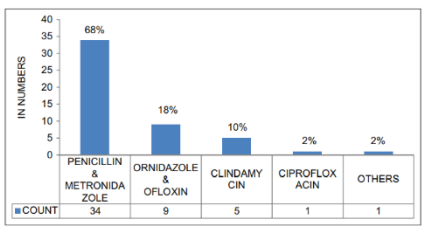

Figure 9 : Bar graph showing most preferred antibiotics in dento-alveolar abscess

DISCUSSION

Tooth extraction remains a major cause commonly performedprocedure in developing countries.[23,24] Tooth loss has significant socioeconomic, quality of life general health, and psychological consequences.[24,25] Indeed, tooth loss has become a global public health concern of immense proportion.[25,26] Despite being preventable, dental caries and periodontal disease remain the most common reasons for tooth extraction, especially developing nations.[27,28]

The reasons for tooth extraction and the number of teeth extracted in a population have been linked to the oral hygiene, level of education, socioeconomic status, and individual quality of life.[25,27,29] Degree of urbanization has also been found to affect the pattern of tooth extractions.[30,31]Moreover, oral disease burden and its etiological factors exhibit inter- and intra-regional variations.[32] Dental extraction has a psychological influence on the patients both before and after the surgery. It is always a delicate task in the hands of dentists to prepare the patients before any dental extraction procedure and it is also critical to provide appropriate expectations of the discomfort the patients would experience.[33] Local anaesthetic solutions are utmost importance in the field of dentistry. The main use of the localanaesthetic drug is that they eliminate pain.[34] Extractionis 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. The impaction rate for third molars is higher than for any other teeth.[34] Root fracture is the most common complication according the dentists conducted in the survey.Thus, extracting a tooth without fracturing the root is technique sensitive and thus need to be practiced well by thedentists to avoid further complication.

Cryers and coupland elevators are the most preferred instruments for extractionof upper and lower third molar, respectively, which makesus understand that these instruments makes extraction more easier. 70–110 mg/dL is the normal range of blood glucose during exodontia and 120/80–160/94 mmHg is the normal blood pressure for exodontia, thus making it significant before initiating extraction. The most commonly

preferred antibioticin therapeutic extraction is broad-spectrum antibiotics, the other alternative when LA does not work is intra ligamental and penicillin an metronidazole are the most preferred in dentoalveolar abscess. Awareness must be created about the normal blood pressure range among dentists to be performedin cases of exodontia.

CONCLUSION

Thus, exodontia is very well understood from the surveythat 27 and 28 are the most difficult teeth during exodontia, root fracture is the most common complication, cryers and Coupland elevators are the most preferred instruments for extraction of upper and lower third molar, respectively, 70–110 mg/dL is the normal range of blood glucose during exodontia and 120/80–160/94 mmHg is the normal blood pressure for exodontia, the most commonly preferred antibioticin therapeutic extraction is broad spectrum antibiotics, the other alternative when LA does not work is intra ligamental and penicillin an metronidazole are the most preferred in dentoalveolar abscess. Awareness must be created about the normal blood pressure range among dentists to be performedin cases of exodontia.

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Nil.

CONFLICT OF INTEREST

There are no conflicts of interest.

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Questionnaire 1

Perception of exodontia –

Research questionnareAge:

Sex: Male/Female

Year of practice:

1. Which is the most difficult tooth to extract?

18 17 16 15 14 13 12 11 21 22 23 24 25 26 27 28

48 7 46 45 44 43 42 41 31 32 33 34 35 36 37 38

2. What is the most common complication encounted in exodontia?

A. Bleeding
B. ORO-antral communication
C. Dentoalveolar Fracture
D. Tuberosity fracture
E. Root fracture
F. Others.

3. Which instrument do you use for extraction of upper third molar?

A. Straight elevators
B. Forceps
C. Cryers
D. Coupland elevators
E. Others.

4.Which instrument do you use for extraction of lower third molar?

A. Straight elevators
B. Forceps
C. Coupland Elevators
D. Others.

5. What is the normal blood glucose level do you prefer for extraction?

A. 40 – 60 mg/dL (fasting)
B. 70 – 110 mg/dL (fasting)
C. 120 – 140 mg/dL (fasting).

6. What is the normal blood pressure do you prefer for extraction?

A. 100/70–140/90mm/Hg
B. 90/60–140/94 mm/Hg
C. 120/80–160/94 mm/Hg.

7. Which antibiotic do you prefer in therapeutic extraction?

A. Narrow spectrum
B. Broad spectrum
C. Metronidazol
D. No antibiotics
E. Others.

8.How will you manage if the local anesthesia is not achieved?

A. Main trunk anesthesia
B. Intrapulpal injection
C. Intraligamental injection
D. Antibiotic and recall.

9.What is your preference of antibiotics in dentoalveolar abscess cases?

A. Penicillin and metronidazole
B. Ornidazole and ofloxin
C. Clindamycin
D. Ciprofloxacin
E. Others.

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