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Evaluation of Awareness of Dentists About the Endo-Perio Lesions: A Cross-Sectional Study

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ABSTRACT

Background: The purpose of the present study was to present study was to evaluate the awareness of Dentists about the Endo-Perio Lesions (EPL) in dental practioners. Methodology: A descriptive survey study was conducted amongst 100 dental practioners. The dental surgeons were assessed regarding their skills as well as their knowledge about handling endo-perio lesions and the problems they face while handling combined lesions. Results: Only 28% of dental professionals especially specialists are capable to manage EPL cases. However, 88% of participants felt the need to add more study material in the undergraduate curriculum regarding management of EPL. Conclusion: Contrary to expectations; the awareness and knowledge levels were low in the dentists.

Keywords: Awareness, endo-perio Lesions, dentists.

INTRODUCTION

The complexity of endo-perio lesions (EPL) reflects the close interrelationship between the periodontium and the endodontic system. A review of current literature was commenced in order to debate the intricacy of the endo-periodontal anatomic and pathologic communication avenues. PubMed online research was conducted in order to identify articles regarding this subject using the keywords "endo-perio lesion", "endodontic infection" and "periodontal disease". Manual searches of published articles and related reviews were performed as well for completing the research necessary in writing this paper.

The "EPL" term was first introduced in the American Association of Endodontics' Glossary of Endodontic Terms in 1998, followed closely by the American Academy of Periodontology, which defined the lesion to be a localized infection original from the periodontal or pulp tissue [1]. Both endodontic and periodontal lesions are polymicrobial anaerobic infections. The combined EPL disease is caused by simultaneous inflammation in varying degrees of the endodontic system and periodontium. Etiologic components of predominantly bacterial origin, as well as other factors such as dental malformations, history of trauma, iatrogenic perforations, and external or internal root resorptions have their part in the progression of EPL [2-6]. The presence of active carious lesions, furcation involvement, anatomical grooves, and porcelain fused to metal crowns are considered risk factors in the occurrence of EPL. In patients presenting with periodontitis, EPL usually shows no evident symptoms and has slow, chronic progression [7-9]. The purpose of the present study was to evaluate the awareness of Dentists about the Endo-Perio Lesions.

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Table 1: Questionnaire used in the study.

Sl. No.	Questions
1	Do you handle endo-perio lesions in your clinical practice?
2	Do you refer these cases to specialists?
3	Are intra-canal medicaments helpful in Endo-perio lesions?
4	Do you have adequate knowledge and expertise to handle such cases?
5	Can you perform hemisection/ root amputation / complex endodontic and periodontal surgical procedures?
6	Are patients in your clinical practice, motivated enough to go through complex procedures to get these types of lesions treated?
7	Do you think that undergraduate curriculum should include more study material on handling endo-perio lesions?

Table 2: Answers to the questionnaire from the study participants.

Question No.	Responses	
	Yes	No
1	38%	62%
2	66%	34%
3	92%	8%
4	28%	72%
5	18%	82%
6	36%	64%
7	88%	12%

MATERIALS AND METHODS

A cross-sectional study was conducted amongst 100 dental practioners. There were 40 female and 60 male dentists participating in the study. The dental surgeons were assessed regarding their their skills as well as their knowledge about handling endo-perio lesions and the problems they face while handling combined lesions. The questionnaire survey (Table 1) consisted of 7 questions in English language and was in a binary format with answers having in either 'Yes' or 'No' replies with a few questions in open ended format, so that descriptive answers can be acknowledged from the participants. The survey was emailed to the dentists and the replies were recorded in MS Excel spreadsheets. The data recorded was subjected to descriptive statistical analysis using latest SPSS.

RESULTS

In our study we found out that, around 62% dental professionals are reluctant to handle complex EPL cases and 66% refer those cases to the specialists. (Table 2) Only 28% of dental professionals especially specialists are capable to manage these cases. Patients also are not motivated enough (64%) to undergo lengthy treatment procedures rather they prefer to extract the teeth rather than undergo proper EPL treatment. Unfortunately, only 18% of the participants were aware of carrying out procedures like hemisection and other EPL surgical procedures. This survey also recorded that around 88% of participants felt the need to add more study material in the undergraduate curriculum regarding management of EPL.

DISCUSSION

One of the most casual difficulties in today's clinical practice is to management EPL. Synchronized presence of pulpal diseases and inflammatory periodontal diseases can elaborated diagnosis and treatment planning and influence the sequence of care to be performed.1 This is generally appropriate for patients of progressive periodontitis, tooth loss and pulpal diseases. An accurate anamnesis and conscientious clinical and radiographic examination

are essential to describe and exactly decide the addition of each lesion to patient's problem.10,11 Primary endodontic lesions usually heal after a correct endodontic treatment. The prognosis is generally a good one especially if during cleaning and shaping of the root canals, the irrigation protocol was thoroughly performed.12 Primary periodontal lesions only require periodontal therapy. Treatment options include etiologic therapy by eliminating all factors which can induce or promote epithelial downgrowth followed by surgical periodontics. 13 True combined lesions demand both endodontic and periodontal regenerative procedures. Without this interdisciplinary treatment method, there will be no satisfactory prognosis, with the success rate dropping to 27-37% as the study conducted by Oh et al reported. 14 As a first step, true combined lesions should be addressed with an endodontic treatment. Before any periodontal surgical procedure, etiologic therapy should be initiated as the prognostic of these combined lesions is closely related to the efficiency of the periodontal management.15 Prognosis of an affected tooth can also be improved by increasing bone support around the denuded cement surface, achieved through bone grafting and guided tissue regeneration (GTR). These regenerative treatment techniques, performed by using the operating microscope, have reported a success rate of 77.5% as Kim et al established. 16 In our study, we noticed that many dental professionals felt endo-perio lesions problematic and usually refer them to specialists rather than handling. We also noticed that dental surgeons are hesitant to handle such cases as it required complex treatment options as well as longer treatment time, which the patients might not be in favor of.

CONCLUSION

Contrary to expectations; the awareness and knowledge levels were low in the dentists. In order to increase the knowledge level of dentists in the diagnosis and treatment of EPL holding periodic seminars and courses for dentists working in public hospitals and private clinics might give more successful results with the increase of knowledge in dentists who encounter these lesions. The possibility that dentists who are trained in specialties receive lessons about EPL during their specialization training might prevent the loss of labor and time in the prognosis of possible in the future.

CONFLICTS OF INTEREST

The authors declare they have no potential conflict of interest regarding this article.

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