

Classification of endo-perio lesions, based on radiographic examinations

Ilma Robo,* Saimir Heta, Sonila Kapaj, Bianka Qirjaqi

University of Medicine, Faculty of Dental Medicine, Department of Dentistry, Tirana, Albania

6-10 June RAP 2022

Introduction: Endo-perio lesions in the clinical complexity of the manifestation have difficulties in treatment until the correct diagnosis, which is performed based on moment of establishing a clear clinical diagnosis. The classification of lesions helps to establish the n clinical and radiographic evaluations of the affected tooth.

The study is cross-sectional based on the collection of radiographic data on the occurrence of endo-perio lesions at accurate periapical radiographs.



Materials and methods: The study is based on the evaluation of endo-perio lesions based on radiographic examinations, to classify them according to two classification systems of these lesions. For the study, 104 periapical radiographs of patients presented in the dental clinic with objective and subjective complaints of the presence of endo-perio lesions. Radiographs were classified according to the accuracy criteria of periapical radiographs, criteria set by Prichard. Depending on the classification of the accuracy criteria, those radiographs that did not meet these criteria were excluded. Endo-perio lesions were classified based on the classification of Simon et al and the Torabinejad and Trope classification.

Results

Table 1. Division of radiographs depending on the fulfillment of the criteria for accurate radiography.

X-rays	Radiologically accurate	%	Radiological inaccurate	%	Totali-%
Perio - correct	84	81%	9	9%	93-89%
Perio - incorrect	6	6%	5	5%	11-11%
%	90-87%	87%	14-13%	14%	104-100%



Table 2. Table 2 shows the distribution of radiographs depending on the presence of endo or perio lesions.

X-rays	No.	%
Lesions Endo	32	38%
Lesions Perio	22	26%
Lesions Endo-Perio	30	36%
Totali	84	100%

•The division of radiographs depending on the fulfillment of the accuracy criteria showed that 81% of the radiographs met the periodontal and radiographic criteria simultaneously. For periodontal criteria on radiographic accuracy: 100% did not meet Prichard Criterion 1, 8% did not meet Prichard Criterion 2, 55% did not meet Criterion 3, and 0% were related to Criterion 4.

Distribution of radiographs depending on the presence of endo or perio lesions: endo lesions occurred in 32 cases or in 38% of radiographs; perio lesions occurred in 22 cases or in 26% of radiographs and endo-perio lesions were in 30 cases, or in 36% of radiographs included in the study. According to the classification Simon et al. radiographs were divided: class a 40%, class b 20% class c 7% class d 10% and class 23%. According to the Tobabinejad and Trope classification endo-perio lesions were by classes specifically: class a 60% class b 17% class c 23%.

Conclusions: Despite the different types of endo-perio lesion classification, the distribution across the classification classes shows the same values in equal percentages for true combined endo-perio lesions. For other subclasses, classifications with several subclasses are more sensitive to the course and prognosis of endo-perio lesions, but difficult to determine which class this lesion belongs to.

References

- Rotstein and J. H. Simon, "The endo-perio lesion: a critical appraisal of the disease condition," *Endodontic Topics*, vol. 13, no. 1, pp. 34-56, 2006. View at: [Google Scholar](#).
- J. H. Simon, D. H. Glick, and A. L. Frank, "The relationship of endodontic-periodontic lesions," *Journal of Periodontology*, vol. 43, no. 4, pp. 202-208, 1972. View at: [Google Scholar](#).
- G. C. Armitage, "Development of a classification system for periodontal diseases and conditions," *Annals of Periodontology*, vol. 4, no. 1, pp. 1-6, 1999. View at: [Google Scholar](#).
- S. Lee, M. Monsef, and M. Torabinejad, "Sealing ability of a mineral trioxide aggregate for repair of lateral root perforations," *Journal of Endodontics*, vol. 19, no. 11, pp. 541-544, 1993. View at: [Publisher Site](#) | [Google Scholar](#).
- Stephen Cohen Kenneth, M. Hargreaves, *Pathways of the pulp*, ninth edition, New York, USA, Elsevier Inc. 2005.
- M. Haapasalo, H. Ranta, K. Ranta, and H. Shah, "Black-pigmented Bacteroides spp. in human apical periodontitis," *Infection and Immunity*, vol. 53, no. 1, pp. 149-153, 1986. View at: [Google Scholar](#). B. Bender and S. Seltzer, "The effect of periodontal disease on the pulp," *Oral Surgery, Oral Medicine, Oral Pathology*, vol. 33, no. 3, pp. 458-474, 1972. View at: [Google Scholar](#).
- S. Madison and L. R. Wilcox, "An evaluation of coronal microleakage in endodontically treated teeth. Part III: in vivo study," *Journal of Endodontics*, vol. 14, no. 9, pp. 455-458, 1988. View at: [Publisher Site](#) | [Google Scholar](#).
- B. Mazur and M. Massler, "Influence of periodontal disease on the dental pulp," *Oral Surgery, Oral Medicine, Oral Pathology*, vol. 17, no. 5, pp. 592-603, 1964. View at: [Google Scholar](#).

