

Incidence of Common Periapical Lesions -An Intra Oral Periapical Radiographic Study

Nausheen Mobeen,

BDS Student(Third Year)

Saveetha Dental College and Hospital, Tandalam, Chennai, Tamil Nadu, India

Abstract

Aim-The aim of present study is to identify periapical change amongst patients visiting saveetha dental college .

Objective-A retrospective study of 200 Intra-oral periapical radiographs were studied over a period of 2 months(March-April 2015) . Radiograph of patients above 10years were conducted in study and the periapical changes were noted.

Background –Periapical changes occur as a sequelae of pulpal and periapical pathology which leads to either bone resorption or bone deposition. This radiographic study is to determine the incidence of the common periapical changes or lesion occurring among patients who are exposed to intra oral periapical radiographs as part of their routine clinical investigative procedures.

Keywords: periapical changes, periapical lesions, radiographs, radiolucency,

INTRODUCTION

Periapical changes occur in response to pulpal changes the majority of the time, it is still important to determine the disease process sequence. The disease process is of pulpal origin; the pulpal infection and necrosis may drain not only through the apical foramen, but also through an accessory canal, which may present as a periradicular radiolucency. When it is determined that there is a pulpal involvement to the periodontal lesion, the endodontic infection should be controlled prior, especially when bone grafting technique are planned(1).Careful evaluation of every abnormal radiolucency or radiodensity should be done. Periapical lesion may have odontogenic or nonodontogenic origins(2-4). To achieve healing of the periapical lesion, one must obtain a decontaminated root canal system, which does not merely consist of tapering cone-shaped canals from orifice to apex, but instead, it is an intricate labyrinth of canals that diverge and weave to form an anastomosing passages(5). it is important to appreciate that files produce shape and irrigants clean the root canal system(6). Irrigants like sodium hypochlorite are important to dissolve all remnants of pulp tissue and destroy all micro-organism (7). The tooth stability does not undergo any changes after surgery compared to initial value before establishing any treatment(8,9).

METHODOLOGY

The purpose of the study was to rule out periapical lesion on 200 patients radiographs who visited Saveetha Dental College,Chennai for seeking dental care. The occurrence was accessed in patients with age group 10 years and above within duration of 2months. The following data was recorded from each patients report and radiograph : Gender of patient, age group ranging from 10 years and above, number of maxillary tooth examined, number of mandibular tooth examined, number of anterior tooth examined and number of mandibular tooth examined, total number of radiograph which showed periapical lesion, the

tooth number which has highest prevalence of periapical lesion, total number of patients with periapical lesion who reported as symptomatic and asymptomatic.

RESULT

The present study population included 200 patients radiograph .Out of these 134 were male and 66 were female patients. Age group factor: 24 were ranging from age group of 10-20 years , 76 were ranging from age group of 20-30years , 58 were ranging from age group of 30-40years , 32 were ranging from age group of 40-50years and 10 were ranging from age group above 50. Out of which total of 87 maxillary tooth was examined and 113 of mandibular tooth were examined. Total of 50 anterior tooth were examined and total of 150 mandibular tooth were examined. Out of 200 patients radiograph examined total number of 20 radiograph showed periapical radiolucency. Out of 20 patients who reported with periapical radiolucency a total of 17 patients reported symptomatic and 3 patients reported asymptomatic.

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Males	134
Females	66
Age Group (10-20)	24
Age Group (21-30)	76
Age Group (31-40)	58
Age Group (41-50)	32
Age Group >50	10
Maxillary Tooth	87
Mandibular Tooth	113
Anterior Tooth (Incisor & canine)	50
Posterior Tooth (Premolar & Molar)	150
Patients Periapical Lesions	20
Symptomatic	17
Asymptomatic	3

Tooth-Pairs with Periapical Lesions

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	11	2	1.0	10.0	10.0
	12	3	1.5	15.0	25.0
	13	1	.5	5.0	30.0
	14	1	.5	5.0	35.0
	16	1	.5	5.0	40.0
	21	1	.5	5.0	45.0
	22	1	.5	5.0	50.0
	27	1	.5	5.0	55.0
	31	1	.5	5.0	60.0
	36	4	2.0	20.0	80.0
	41	1	.5	5.0	85.0
	42	1	.5	5.0	90.0
	46	1	.5	5.0	95.0
48	1	.5	5.0	100.0	

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