



Prevalence of Pulpal, Periodontal and Periapical Pathologies among Patients Attending Patna Dental College and Hospital Patna Bihar: A Cross Sectional Study

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ABSTRACT: AIM: To study the prevalence of pulpal, periodontal and periapical pathologies among patients attending Patna Dental College and Hospital Patna Bihar.

METHODS: A total of 5600 patients were screened, out of which 3369 were included in the study. Intraoral examination was done under all aseptic conditions by using a diagnostic set of instruments. The status of the pathologies was recorded to the standard procedure. Data was stored in Microsoft Excel 2010 for analysis.

RESULTS: It was observed that periodontal pathologies were more in female (465; 29.79%) as well as male (613; 33.94%) but in male it was more prevalent in compare to female. The least common pathologies in female (58; 3.72%) as well as male (81; 4.48%) were pulpal & periapical pathologies.

CONCLUSION: The current study showed significant data for the prevalence of pulpal, periodontal and periapical pathologies. There is need to spread awareness about oral health. It is very important to do work on the prevention of pulpal, periodontal and periapical pathologies.

KEYWORDS: pulpal pathologies; periodontal pathologies; periapical pathologies.

Received 15 Jun, 2018; Accepted 30 June, 2018 © The Author(S) 2018. Published with open access at Www.Questjournals.Org

I. INTRODUCTION

Dental diseases are a significant public health burden in India, with dental caries affecting 60 to 65% and periodontal diseases affecting an estimated 50 to 90% of the general population¹. Dental caries is a significant health problem among the people of all ages, but the magnitude of the problem is the greatest among young children². Dental caries is an infectious microbiologic disease of the calcified tissues of the teeth, characterized by the demineralization of inorganic portions and destruction of the organic substances of the teeth³.

II. MATERIAL & METHODS

After obtaining approval from ethical committee, the total numbers of 5600 patient were examined. An informed consent was obtained from all participants. 6 years to 65 years and patients belonging to the age more than 65 years were included in this study. Intraoral examinations of the patients were done under all aseptic conditions by using a diagnostic set of instruments. Out of 5600 patients 3369 patients were diagnosed with the pathologies. The status of the pathologies was recorded to the standard procedure. Data was stored in Microsoft Excel 2010 for analysis.

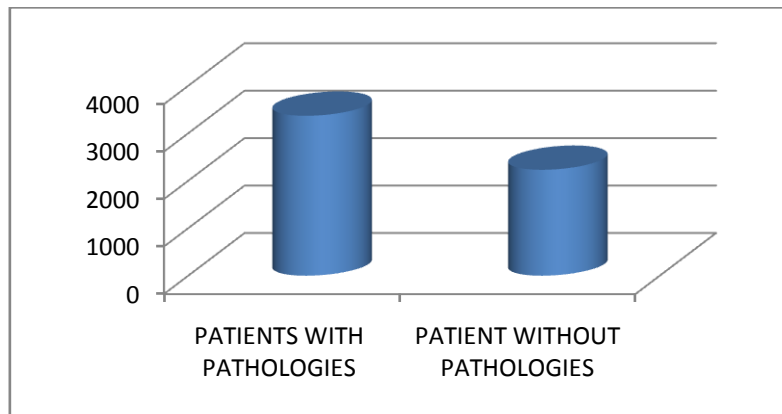
III. RESULTS

The total numbers of 5600 patient were examined. Out of 5600 patients 3369 (60.16%) patients were diagnosed with pathologies and 2231 (39.84%) patients were diagnosed without pathologies (TABLE NO. 1, GRAPH NO. 1 A, GRAPH NO. 1 B). Out of 3369 patients 1561 (46.33%) patients were female and 1808 (53.67%) patients were MALE (TABLE NO. 2, GRAPH NO. 2 A, GRAPH NO. 2 B). Out of 3369 patients

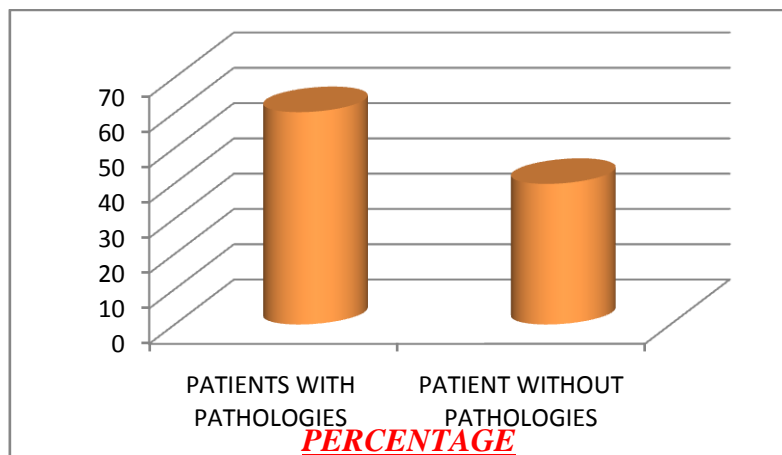
maximum number of patients was 833 (24.73%) which belongs to age group between 26 to 35 years and minimum number of patients was 147 (4.36%) which belongs to age group above 65 years (TABLE NO. 3, GRAPH NO. 3). Out of 1561 female patients maximum number of female patients were suffering from periodontal pathologies (465; 29.79%) followed by pulpal and periodontal pathologies (319; 20.44%) followed by pulpal pathologies (280; 17.94%) followed by pulpal, periodontal and periapical pathologies (123; 7.88%) followed by periodontal and periapical pathologies (115; 7.37%) followed by periapical pathologies (101; 6.47%) followed by pulpal and periapical pathologies (58; 3.72%). Out of 1808 male patients maximum number of male patients were suffering from periodontal pathologies (613; 33.94%) followed by pulpal and periodontal pathologies (511; 28.26%) followed by pulpal pathologies (305; 16.87%) followed by periodontal and periapical pathologies (107; 5.92%) followed by periapical pathologies (97; 5.37%) followed by pulpal, periodontal and periapical pathologies (94; 5.20%) followed by pulpal and periapical pathologies (81; 4.48%) (TABLE NO. 4, GRAPH NO. 4).

TABLE NO. 1 :- PATIENTS WITH PATHOLOGIES AND PATIENT WITHOUT PATHOLOGIES

PATIENTS WITH PATHOLOGIES	PERCENTAGE (%)	PATIENT WITHOUT PATHOLOGIES	PERCENTAGE (%)	TOTAL NO OF PATIENTS
3369	60.16	2231	39.84	5600



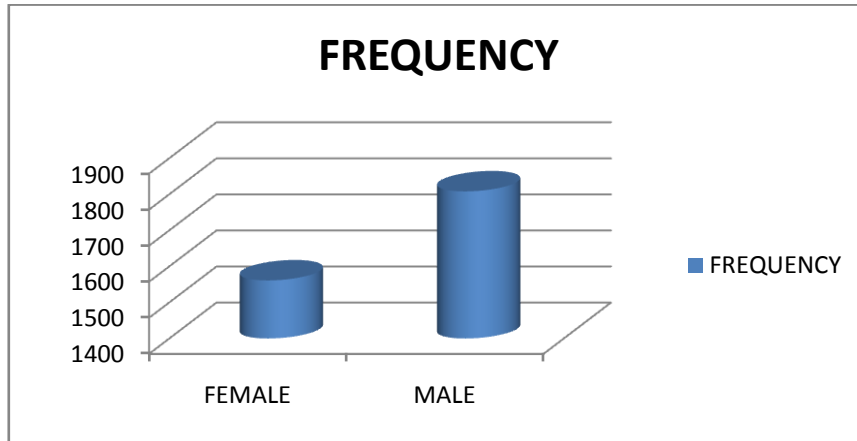
GRAPH NO. 1 A :- PATIENTS WITH PATHOLOGIES AND PATIENT WITHOUT PATHOLOGIES



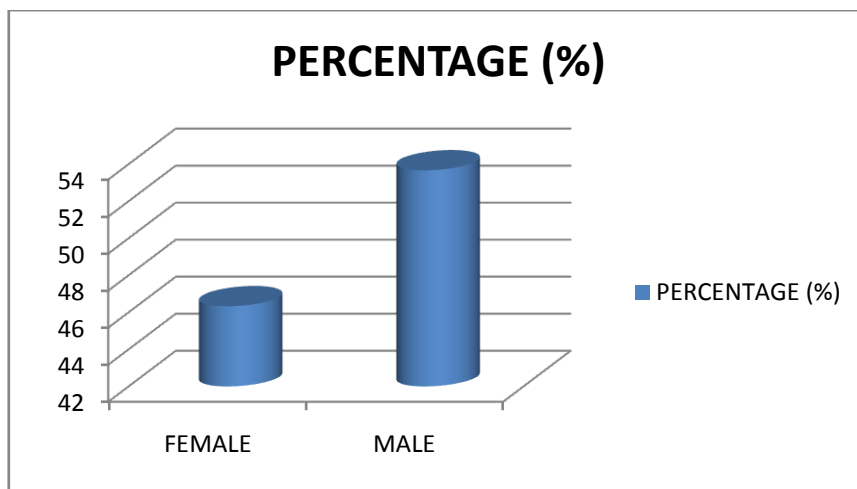
GRAPH NO. 1 B :- PATIENTS WITH PATHOLOGIES AND PATIENT WITHOUT PATHOLOGIES (%)

TABLE NO. 2 :- GENDER WISE DISTRIBUTION OF PATIENT HAVING PATHOLOGIES

GENDER	FREQUENCY	PERCENTAGE (%)
FEMALE	1561	46.33
MALE	1808	53.67



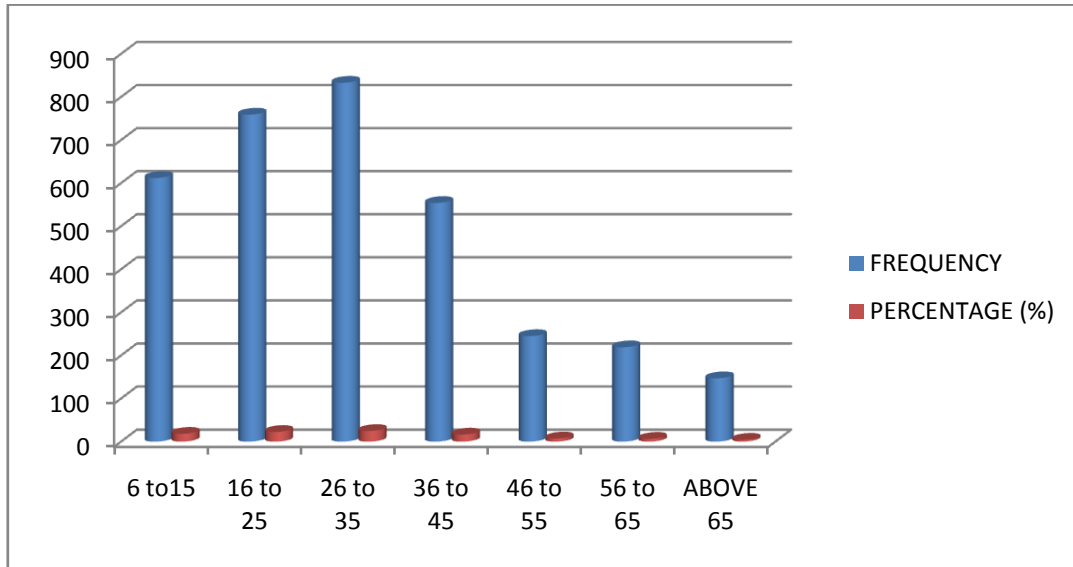
GRAPH NO. 2 A :- GENDER WISE DISTRIBUTION OF PATIENT HAVING PATHOLOGIES



GRAPH NO. 2 B :- GENDER WISE DISTRIBUTION OF PATIENT HAVING PATHOLOGIES (%)

TABLE NO. 3 :- AGE WISE DISTRIBUTION OF STUDY POPULATION

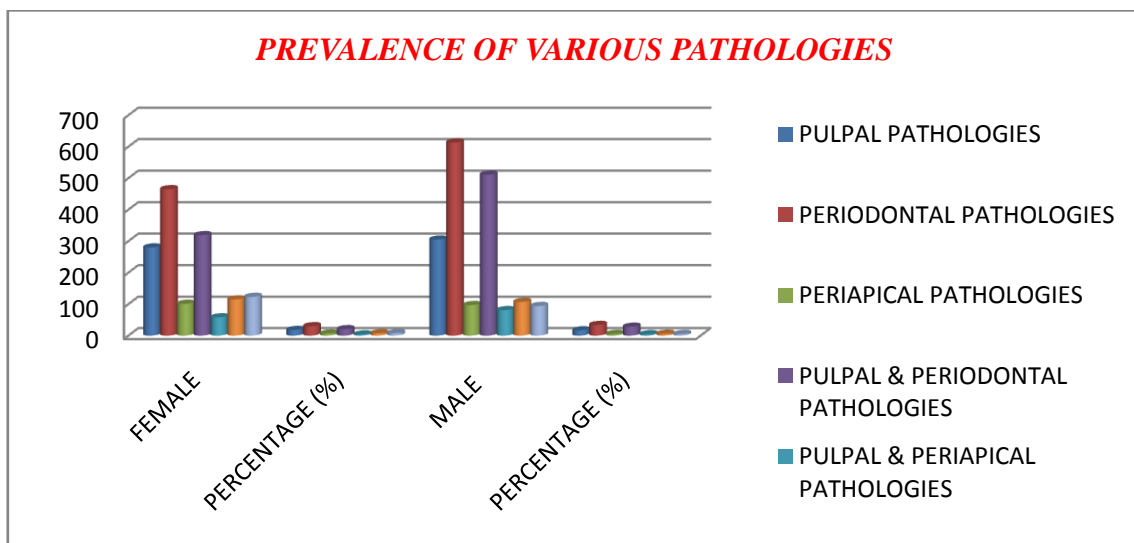
AGE GROUP (year)	FREQUENCY	PERCENTAGE (%)
6 to15	612	18.17
16 to25	759	22.53
26 to35	833	24.73
36 to45	554	16.44
46 to55	245	7.27
56 to65	219	6.50
ABOVE 65	147	4.36



GRAPH NO. 3 :- AGE WISE DISTRIBUTION OF STUDY POPULATION

TABLE NO. 4 :- PREVALENCE OF VARIOUS PATHOLOGIES

OVERALL PATHOLOGIES	FEMALE	PERCENTAGE (%)	MALE	PERCENTAGE (%)
PULPAL PATHOLOGIES	280	17.94	305	16.87
PERIODONTAL PATHOLOGIES	465	29.79	613	33.94
PERIAPICAL PATHOLOGIES	101	6.47	97	5.37
PULPAL & PERIODONTAL PATHOLOGIES	319	20.44	511	28.26
PULPAL & PERIAPICAL PATHOLOGIES	58	3.72	81	4.48
PERIODONTAL & PERIAPICAL PATHOLOGIES	115	7.37	107	5.92
PULPAL, PERIODONTAL & PERIAPICAL PATHOLOGIES	123	7.88	94	5.20



GRAPHNO. 4 :- PREVALENCE OF VARIOUS PATHOLOGIES

IV. DISCUSSION

In this study, the prevalence of Periodontal Pathologies was found to be the highest in the male study population, at 33.94% (613), and 29.79% (465) in female study population. While in a study it was found that dental caries was the most common pathologies which were highest in female i.e. 49.1% which was more than the occurrence in males (41.8%)⁴. Among the various prevalence recorded in this study, results showed that pulpal and periodontal pathologies was the second highest pathologies among which males accounted for 28.26% (511) and females accounted for 20.44% (319). Pulpal pathologies were found to be 17.94% in female and 16.85% in male. Recent evidence indicates that rural populations have a higher prevalence of periodontal diseases. Interestingly, oral disease patterns, health behaviours, and health care modalities are significantly different from those in urban areas⁵. In this study, the prevalence of periapical pathologies was more in females (6.47%) than in males (5.37%). According to a study, 12% of periapical lesions have non-endodontic origin, and the other 88% have odontogenic origin⁶.

V. CONCLUSION

The current study showed significant data for the prevalence of pulpal, periodontal and periapical pathologies. There is need to spread awareness about oral health. It is very important to do work on the prevention of pulpal, periodontal and periapical pathologies.

ACKNOWLEDGEMENT

Authors acknowledge the immense help received from the scholars whose articles are cited and included in reference of this manuscript. The authors are grateful to authors / editors / publishers of all those articles, journal and books from where the literature for this article has been reviewed and discussed.

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Dr. Konark, Bds(H), Mds." Prevalence of Pulpal, Periodontal and Periapical Pathologies among Patients Attending Patna Dental College and Hospital Patna Bihar: A Cross Sectional Study." *Quest Journals Journal of Medical and Dental Science Research* 5.3 (2018): 72-76.