Original Article

Assessment Of Class II Caries MOD Visited In Hospital: A Three Months Retrospective Analysis.

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Abstract

Background: Dental caries is a multifactorial oral disease which affects humans of any age, sex, race and socioeconomic status. The present study was retrospectively conducted to assess the prevalence of class II MOD caries patients visited in a department over the period of 3 months. **Subjects and Methods:** The present study was conducted retrospectively in which record of 250 patients were examined to check the prevalence of Class II MOD cavities. Patients were selected from the out-patient department of Conservative Dentistry. Before commencement of the study permission was taken from ethical committee of the institution. In this study we recorded only class II MOD caries. **Results:** In our study we examined 250 patients for Class II MOD caries. In 250 patients 76 (30.4%) patients had Class II MOD caries. The class II MOD caries was prevalent in age group 31-40 years (36.84%). **Conclusion:** Our study concluded that class II MOD was more prevalent than any other carious lesion. The class II MOD caries was prevalent in age group 31-40 years.

Keywords: Class II MOD, Dental Caries.

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Introduction

Dental caries is the most prevalent chronic disease affecting humans irrespective of age, sex, race and socioeconomic status.[1] As around 90% of school children and most of the adults have been affected by dental caries, hence it has been considered as the most important global oral health burden.[2] Dental caries is a major oral health problem affecting 2.43 billion people (35.3% of the population) worldwide in the year 2010.[3] Dental caries is a multifactorial disease; several factors play a role in the initiation and progression of the lesion including environmental factors, host, and behavioral factors.[4]Dental caries causes pain as well as local and systematic infection. It will progress into tooth pulp and a dental abscess will form if untreated. Moreover, it affects children's nutrition, growth and development, general health and quality of life.[5] According to the World Health Organization (WHO 1997), detection of dental caries in surveys has been performed at cavitation level because examiners frequently cannot reliably assess the non-cavitated lesions. However, the inclusion of non-cavitated caries lesions is necessary since these can be arrested through certain preventive measures and lowering the cost of restorative treatment.[6] The present study was retrospectively conducted to assess the prevalence of class II MOD caries patients visited in a department over the period of 3 months.

Subjects and Methods

The present study was conducted retrospectively in which record of 250 patients were examined to check the prevalence of Class II MOD cavities. Patients were selected from the out-patient Department of Dentistry, Nalanda Medical College & Hospital, Patna, Bihar, India..Before commencement of the study permission was taken from ethical committee of the institution. A diagnostic criteria for clinical examination was followed wherein, caries was detected according to WHO criteria that "clinically the caries was recorded as present when a lesion in a pit or fissure or on a smooth surface had a detectable softened floor, undermined enamel or softened wall. On Proximal surface it had to be certain that the explorer had entered the lesion or taking bitewing radiograph for any doubt existed caries"7. Black in 1908 classified carious lesion by location as follow:

- Class I: These are including occlusal surface, buccal and lingual pits of posterior teeth and lingual surface of anterior teeth.
- Class II: These are involving proximal surface of posterior teeth.
- Class III: These are involving proximal surface of anterior teeth that do not include the incisal edge.
- Class IV: These are involving the proximal surface of

anterior teeth that include the incisal edge
- Class V: These are involving the gingival third of the facial or lingual surface of all teeth.[8]

Carious lesions that were found on the incisal edge or cusp tips were excluded from the present study as it's not recommended by GV Black. In this study we recorded only class II MOD caries.

Results

In our study we examined 250 patients for Class II MOD caries. In 250 patients 76 (30.4%) patients had Class II MOD caries. The class II MOD caries was prevalent in age group 31-40 years (36.84%).

Table 1: Prevalence of class II MOD.

GV Black classification	No. (%)
Class 1	42(16.8%)
Class 2(MO)	59(23.6%)
Class 2(DO)	40(16%)
Class 2 (MOD)	76(30.4%)
Class 3	15(6%)
Class 4	11(4.4%)
Class 5	7(2.8%)

Table 2: Prevalence of class II MOD according to age group.

Age group	No. (%)
20-30	21(27.63%)
31-40	28(36.84%)
41-50	12(15.78%)
51-60	6(7.8%)
61-70	9(11.84%)

Discussion

The increase in caries prevalence is mostly due to lack of oral health care system, because this systems mostly focus on curative care, but there is no periodical implementation of community health prevention and oral health promotion.[9] The World Health Organization (WHO) has ranked it as number three among all chronic non-communicable diseases that require worldwide attention for prevention and treatment.[10]

In our study we examined 250 patients for Class II MOD caries. In 250 patients 76 (30.4%) patients had Class II MOD caries. The class II MOD caries was prevalent in age group 31-40 years (36.84%).

A study done by Azam et al, which stated that recent clinical and experimental caries research confirm the impact of hormonal fluctuations and pregnancy on the quantity and quality of saliva, and thereby on oral ecology, so the physiological mechanisms by which life-history events have a more direct and significant influence on poorer dental health in women than in men is becoming clearer.[11]

Ismail et al., found gender to be a dental caries predictor, with boys being more affected than girls, and this variation could be attributed to the different age group and geographic locations of that study.[12]

The studies done by Goyal et al., and Dash et al., where the increase in prevalence occurred till nine years of age, after which there was a decrease in the caries prevalence until the age of 12 and 15 years.[13,14]

RM T et al conducted a study according to GV Black classification of dental caries in which (7885) carious lesions were detected on various surfaces, class I buccal surface 387 (4.9 %), class I palatal surface 465 (5.8 %), class I occlusal surface 4836 (61.3%), class II mesio-occlusal (MO) 499 (6.3 %), class II disto-occlusal (DO) 594 (7.5 %), class II mesio-occlusal-distal (MOD) 215 (2.7 %), class III mesial 331 (4.1 %), class III distal 289 (3.6%), class IV 95 (1.2 %), class V 174 were (2.2 %).[15]

Conclusion

Our study concluded that class II MOD was more prevalent than any other carious lesion. The class II MOD caries was prevalent in age group 31-40 years.

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