

The Prevalence Of Dental Caries Among 12 Years-Old School Children In An-Najaf Governorate

Muhsin Hamza Khamis

B.D.S, M.SC, Co-coordinator of Dept. of Oral Pathology/ College of Dentistry/ University of Kufa

نسبة انتشار تسوس الأسنان عند طلاب المدارس ذوي أعمار ١٢ سنة في محافظة الاشرف

ملخص بحث

الدراسة تصف نسبة انتشار تسوس الأسنان عند طلاب المدارس ذوي الأعمار ١٢ سنة في محافظة النجف الاشرف. مجموع ٦٠٠ طالب ٣٠٧ ذكور و ٢٩٣ إناث في مدارس النجف الاشرف تم فحصهم استناداً إلى العمر والجنس والسكن (المدن، الضواحي، الريف) اعتماداً على وسائل منظمة الصحة العالمية. أظهرت الدراسة أن نسبة تسوس الأسنان بين الأطفال في المدنية وحسب الجنس كان ٢٥,٢% في الأسنان الدائمة و ٣١,٨% في الأسنان اللبنية عند الذكور بينما عند الإناث ٣١,٢% في الأسنان الدائمة و ٢٠,٤% في الأسنان اللبنية، إن نسبة الخاليين من التسوس عند الذكور ٤٣% بينما عند الإناث كانت النسبة ٤٨,٤%. بينما في الضواحي كانت نسبة تسوس الأسنان عند الذكور ٢٠,٦% في الأسنان الدائمة و ٥١,٥% في الأسنان اللبنية بينما عند الإناث كانت النسبة ١٩,٥% في الأسنان الدائمة و ٢٣% في الأسنان اللبنية. وكانت نسبة الخاليين من التسوس عند الذكور ٢٧,٤% و ٥٧,٥% عند الإناث. وفي الأرياف كانت نسبة تسوس الأسنان عند الذكور ٢٥,٨% في الأسنان الدائمة و ٢٥% في الأسنان اللبنية. بينما عند الإناث كانت النسبة ١٥,٩% في الأسنان الدائمة و ١٩,٥% في الأسنان اللبنية، وكانت نسبة الخاليين من التسوس تساوي ٤٩,٢% عند الذكور و ٦٤,٦% عند الإناث. إن نسبة انتشار تسوس الأسنان عند طلاب المدارس ذوي الأعمار ١٢ سنة في محافظة النجف الاشرف كانت منخفضة استناداً إلى وسائل منظمة الصحة العالمية.

Abstract

The study describes a prevalence rate of dental caries in 12 years old school children in An-Najaf governorate. A total of 600 students, 307 males and 293 females in An-Najaf schools by age ,gender and residence(urban, periurban, rural) were examined according to the WHO survey methods .The rate of dental caries among children in urban by gender was 25.2% in permanent teeth and 31.8% in primary teeth of males while in females 31.2% in permanent teeth and 20.4% in primary teeth.Approximately 43% of the males are caries free while 48.4% of the females are caries free. In periurban area the rate of dental caries in males was 20.6% in permanent teeth and 51.5% in primary teeth ,while in females 19.5% in permanent teeth and 23% in primary teeth .It is found that 27.4% of males are caries free and 57.5% of females are caries free. In rural area the rate of dental caries in males was 25.8% of permanent teeth and 25% of primary teeth ,while in females 15.9% of permanent teeth and 19.5% of primary teeth . The caries free subjects were 49.2% of males and 64.6% of females. The prevalence of dental caries among 12 years-old school children in An-Najaf governorate was low according to the WHO criteria.

Introduction

Dental caries is progressive bacterial damage to teeth exposed to the saliva and one of the most common of all diseases and still a major of loss of teeth (1-5).

To achieve the An-Najaf developmental goals, epidemiological surveys are necessary for major health programming, therefore an oral health survey (first phases) began in 2006 with the cooperation of the An-Najaf education directorate.

The 12 years age is especially important as it is generally the age at which children leave primary school, and therefore in many countries, it is the last age at which liable samples may be obtained easily through the school system. Also it is likely at this age that all permanent teeth, except third molars, will have been erupted. For these reasons the 12 years age have been chosen as the global monitoring age for caries for international comparisons and monitoring of disease trends (2,3,4).

Aims of the study

1-To determine the prevalence of dental caries in the 12-years age children and to produce reliable baseline data for development of regional oral health programs.

2-To determine the oral health status and treatment needs for An-Najaf population.

Subjects and Methods

At the beginning approval of the authority of An-Najaf education directorate has been taken, then 600 students of both sexes of 12 years age were randomly chosen from different schools and different locations (urban, peri-urban and rural areas).

To determine the dental caries, the children were examined, using sickle dental probes and plane mouth mirrors with the aid of daylight. To assess the suspected lesion (dental caries) both visually and using a sickle probe, when the probe stuck in the lesion because the lesion was soft, It was considered as carious.

For every child general information were recorded; the name, date of birth, age in years, gender and the location type (urban, peri-urban, rural). Every tooth was examined (primary and permanent). DMFT was recorded.

Results

The results were processed and analyzed:

Table 1

Shows the distribution of dental caries among children of 12 years age in urban area by gender.

Table 1: Distribution of dental caries among children of 12 years age in urban area by Gender.

Gender	Patient examined No(%)	Caries free No(%)	Dental caries (Permanent) No(%)	Dental caries (Primary) No(%)
Male	107(100)	46 (43)	27 (25.2)	34(31.8)
Female	93 (100)	45 (48.4)	29(31.2)	19 (20.4)
Total	200(100)	91 (45.5)	56 (28)	53 (26.5)

P>0.05

Table 2

Shows the distribution of dental caries among children of 12 years age in peri-urban area by gender.

Table2: Distribution of dental caries among children of 12 years age in periurban area by Gender:

Gender	Patient examined No(%)	Caries free No(%)	Dental caries (Permanent) No(%)	Dental caries (Primary) No(%)
Male	68(100)	19(27.9)	14(20.6)	35(51.5)
Female	87(100)	50(57.5)	17(19.5)	20(23)
Total	155 (100)	69 (44.5)	31 (20)	55 (35.5)

$\chi^2=15.79$

df=2

P<0.05

Table 3

Shows the distribution of dental caries among children of 12 years age in rural area by gender.

Table 3 Distribution of dental caries among children of 12 years age in rural area by Gender.

Gender	Patient examined No(%)	Caries free No(%)	Dental caries (Permanent) No(%)	Dental caries (Primary) No(%)
Male	132(100)	65(49.2)	34(25.8)	33(25)
Female	113(100)	73(64.6)	18(15.9)	20(23)
Total	245(100)	138 (56.3)	52 (21.2)	55 (22.5)

$\chi^2=6.22$

df=2

P<0.05

Concerning the results of the dentition status, the prevalence of dental caries is low according to the WHO criteria which state that if more than 20% of children are caries free, the caries prevalence is low. Most carious teeth in the permanent teeth is first permanent molar.

Concerning the dental caries among the children in urban area, there is no significant relationship by gender; $P > 0.05$, while there is a significant relationship between dental caries and peri-urban and rural residence; $P < 0.05$.

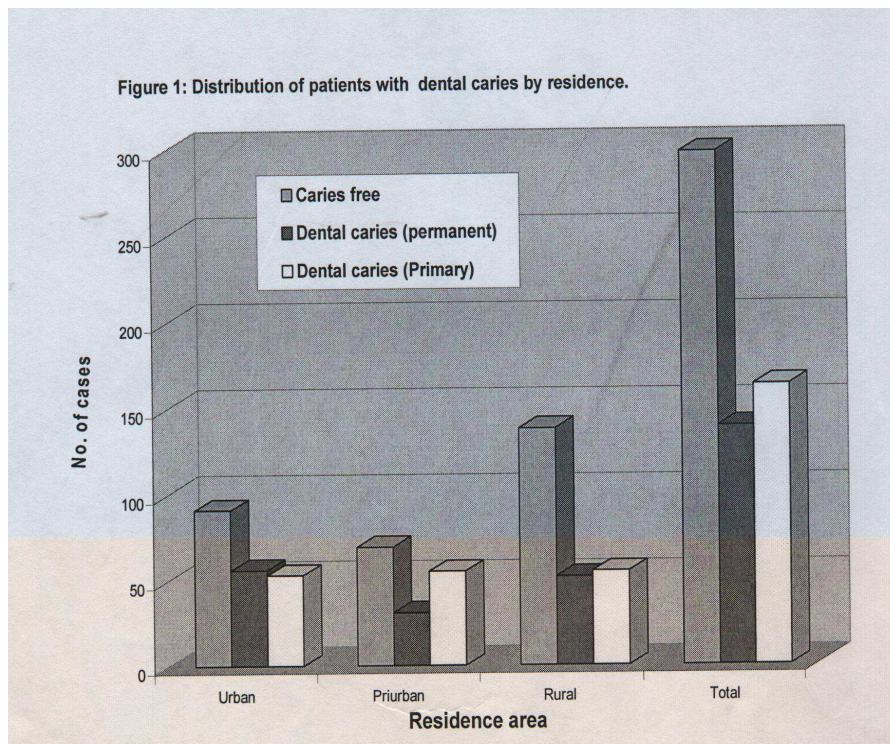


Figure 1: Distribution of patients with dental caries by residence.

Discussion

The results indicate that the dental caries is low among the children at different residences and that most of children possess deciduous teeth. The dental caries is low probably according to the types of food which mostly are fibrous with low sugar intake. Most of children are negligent, there is no oral health care, and have bad oral hygiene, this is because of the wars and poverty and lack of the oral health education.

This is the first study that has been done in An-Najaf governorate, so the study can be considered as a baseline for the future studies.

References

1. Oral health surveys. Basic Methods, 4th ed. Geneva, World Health Organization, 1997.
2. T.A. Rababa'h, F.Jama'ni and M.A. Al-Omari. Oral health survey at an air base in Jordan. Eastern Mediterranean Health Journal, Volume 4, issue 2, 1998, page 332-337.
3. S.M. Seyedein, M.R. Zali, M.V. Golpaigani, H.Yazdani and S. Nourhalouchi. Oral health survey in 12 years old children in the Islamic Republic of Iran. 1993-1994. Eastern Mediterranean Health Journal, Volume 4, issue 2, 1998, page 338-342.
- 4- Sayed Ali Hussein, Munir Domit, Basil Doughan and May El Nadeef. Oral health in Lebanon: a pilot pathfinder survey. Eastern Mediterranean Health Journal, Volume 2, Issue 2, 1996, Page 299-303.
- 5-M.B.S. Gandeh and W.A. Milaat .Dental caries among schoolchildren: report of a health education campaign in Jeddah Saudi Arabia. Eastern Mediterranean Health Journal, volume 6, issue 2/3, 2000, page 396-401.