

State of the oral health in non-cooperative children

Language: English

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Introduction

Treating non cooperative children makes high demands on a dentist and his/her team. These demands are related to psychological, physical and time aspects. For these reasons non-cooperative children are referred by their treating general dentists to specialized work-places such as the Stomatological Clinic of Masaryk University, Faculty of Medicine & Saint Anne's Faculty Hospital in Brno. These children are treated by the implementation of psychological approaches, under premedication and, if necessary, under general anesthesia (GA).

The aim of this work was to gather the data on the dentition state in children treated under GA in the year 2002, and to determine the level of the oral health state of non cooperative children.

Objectives

Lack of relevant data on the oral health state and treatment need in non-cooperative and handicapped children.

Material and Methods

Dental records of 51 children treated under GA in the year 2002 were analysed and DMF-T, DMF/T (%) , RI indices and treatment degree were calculated. The obtained data were compared with those of the countrywide survey (12yr-old). (Krejsa, Broukal, Mrklas 2001)

Results

With regard to the low number of children the trial was evaluated as a unit without gender differentiation. Children below 6 years of age are not treated under GA at the Stomatological Clinic, this care is provided by the Children's Pediatric Hospital Brno. The results are summarized in tables and graphs.

	Number of Children	Mean	SE
Age		9,73	-
Permanent teeth		15,51	0,87
D-teeth		3,82	0,34
F-teeth	51	0,29	0,09
M-teeth		0,18	0,10
DMF-teeth		4,29	0,42
DMF/T (%)		28,00	2,50

Table 1: The main data on the trial

Diagnosis	Number of Children	Age		DMF/T(%)	
		Mean	SD	Mean	SE
Epilepsy	4	8,63	2,18	42,7	20,9
Mental retardation	17	10,18	2,02	28,8	3,6
Cerebral palsy	2	9,32	1,10	21,4	21,4
Cardiovascular diseases	1	8,82	-	31,2	-
Oncological diseases	1	7,62	-	40,0	-
Phobia	26	9,58	1,63	26,2	2,8
Other	2	10,25	1,83	5,8	5,8

Table 2: Dental status and caries experience

Diagnosis	Number of Children	RI+ri (%) F/DMF*100	Treatment grade (%) F+M*100
Epilepsy	4	48,5	53,0
Mental retardation	17	48,5	52,8
Cerebral palsy	2	34,0	35,8
Cardiovascular diseases	1	50,0	50,0
Oncological diseases	1	46,2	53,8
Phobia	26	48,8	52,0
Other	2	55,6	55,6

Table 3: State of the treatment - permanent teeth

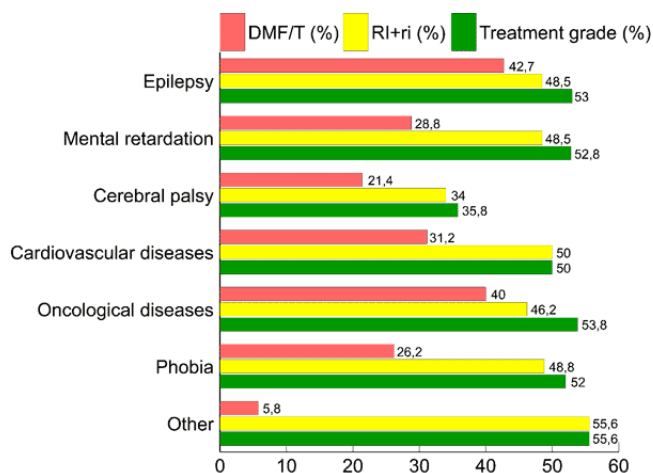


Fig. 1: Values of DMF/T, RI+ri (%) and treatment grade (%) in different diagnoses.

Children treated under GA National-wide data		
DMFT	4,29	3,09
D	3,82 (81%)	0,84 (27,18%)
F	0,29 (6,8%)	2,24 (72,49%)
M	0,18 (4,2%)	0,01 (0,32%)
RI	47,37	72,85

Table 4: The comparison to national-wide data

The results have shown that caries prevalence is much higher if compared to a normal healthy population and that more than 80% of carious lesions are not treated. Even the contribution of extracted teeth is higher, and due to the implementation of more radical treatment procedures it will continue to rise. The restorative index value in non-cooperative children stands for 47.37 vs 72.85 in the healthy population.

Conclusions

In recent decades, a substantial decline in caries prevalence was documented in highly industrialized countries, while in the Central and Eastern Europe caries prevalence remained on a higher level (Marthaler 2004, Pieper, Schulte 2004). Epidemiological data on the dental status of handicapped or non cooperative children suggest a lack of oral health care even in industrialized countries (Choi, Yang 2003, Franklin et al 2000, Martens 1997). The results of our study have demonstrated that caries experience in non-cooperative children was higher than that in a common Czech population (Krejsa, Broukal, Mrklas 2001). More than 80% of decayed teeth were not treated. The restorative index value was 47.37%, while in a common population it was 72.85%. The number of extracted teeth was high, and with regard to more radical therapy further increase would be expected. Moreover, in the group of non-cooperative children suffering from phobia (children without any mental or physical handicap) there were recorded similar values as those in children affected by mental retardation. It is obvious from the obtained data that the dental treatment of handicapped and non-cooperative children is not sufficient, and there is a strong need for mouth hygiene instructions programs for educators, parents and dentists involved in the special care of these children.

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Abbreviations


GA = general anaesthesia

This Poster was submitted by Prof. MUDr. Martina Kukletová.

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Poster Faksimile:



STATE OF THE ORAL HEALTH IN NON COOPERATIVE CHILDREN

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INTRODUCTION

Dental treatment of non cooperative children is very demanding for dentist and his team not only psychically and physically but also as to the duration of the treatment. For these reasons dentists recommend the treatment in specialized dental offices to non cooperative children. Pedodontic department of Stomatological clinic takes care about handicapped and non cooperative children using psychological procedures and premedication. If these means fail, treatment under general anaesthesia (GA) is performed.

The aim of the present study is to gather oral health data of children treated under GA in the year 2002 and to compare the dental status of children suffering from different systemic diseases.


MATERIAL AND METHOD

Dental records of 51 children treated under GA in the year 2002 were analysed and DMF-T, DMF/T (%) and RI indices were calculated. The obtained data were compared with those of the countrywide survey (12yr-olds) in 2000.



RESULTS

With regard to the low number of children the trial was evaluated as an unit without gender differentiation
 Children below 6years are not treated under GA at Stomatological Clinic , this care is provided by Children Pediatric Hospital Brno.



The main data on the trial

	Number of Children	Mean	SE
Age	51	9,73	-
Permanent teeth		15,51	0,87
D-teeth		3,82	0,34
F-teeth		0,29	0,09
M-teeth		0,18	0,10
DMF-teeth		4,29	0,42
DMFT (%)		28,00	2,50


Dental status and caries experience

Diagnosis	Number of Children	Age		DMF/T (%)	
		Mean	SD	Mean	SE
Epilepsy	4	8,63	2,18	42,7	20,9
Mental retardation	17	10,18	2,02	28,8	3,6
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Phobia	26	9,58	1,63	26,2	2,8
Other	2	10,25	1,83	5,8	5,8

State of the treatment - permanent teeth

Diagnosis	Number of Children	RI+ri (%)		Treatment grade (%)	
		F/DMF*100	F+M*100	F	M
Epilepsy	4	48,5	53,0		
Mental retardation	17	48,5	52,8		
Cerebral palsy	2	34,0	35,8		
Cardiovascular diseases	1	50,0	50,0		
Oncological diseases	1	46,2	53,8		
Phobia	26	48,8	52,0		
Other	2	55,6	55,6		

	Children treated under GA	National-wide data
DMFT	4,29	3,09
D	3,82 (81%)	0,84 (27,18%)
F	0,29 (6,8%)	2,24 (72,49%)
M	0,18 (4,2%)	0,01 (0,32%)
RI	47,37	72,85



Diagnosis	DMF/T (%)	RI+ri (%)	Treatment grade (%)
Epilepsy	42,7	48,5	53
Mental retardation	28,8	48,5	52,8
Cerebral palsy	21,4	34	35,8
Cardiovascular diseases	31,2	50	50
Oncological diseases	40	46,2	53,8
Phobia	26,2	48,8	52
Other	5,8	55,6	55,6

CONCLUSION

Results of the study demonstrated that caries experience in handicapped and non cooperative children was higher than in common population. More than 80% of decayed teeth was not treated. Restorative index value was 47,37%, while in common population 72,85%. Number of extracted teeth was high and with regard to more radical therapy further increase would be expected.

Higher attention should be devoted to the dental care for handicapped and non cooperative children

SUMMARY

Oral health state of children treated under general anaesthesia in the year 2002 was evaluated.

Number of treated children was 51, the mean age was 9,73. Reason for the treatment under general anaesthesia were serious systemic diseases or anxiety. The results of the study demonstrated high caries experience in non cooperative and handicapped children. DMFT index in this group was 4,29, with D= 3,82 (81%), F=0,29(6,8%), E=0,18(4,2%). RI value was 47,37%. All the obtained values are very high in comparison to the data reported for common corresponding population. Especially high data were found in extracted teeth E=0,18 while in corresponding children population 0,01 value was reported. Higher attention should be devoted to the dental care for handicapped and non cooperative children.

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