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## Oral health status in selected risk groups of patients treated under general anaesthesia

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### Introduction

Persons with mental disabilities form a group of people with very specific problems. Their disability accompanies them all their lives. Retardation of developmental processes and mental capacity, different development of psychological characteristics, together with defective adaptation behavior can occur. Dental examination and subsequent treatment of these patients frequently require specialized departments with adequate equipment and experienced specialists. The aim of this study was to determine the level of oral health state in persons with handicap, first of all in those with the diagnosis of mental retardation and epilepsy.

### Objectives

Total lack of data on oral health state and treatment need in patients with the diagnosis of mental retardation and epilepsy.

### Material and Methods

In 2002 - 2004 a group of consecutive patients with handicap (N=225) sent for dental care to the Clinic of Stomatology, Masaryk University in Brno, was examined by an experienced dentist; later the patients were treated under general anaesthesia. The subjects for this study were selected according to the specialist's diagnosis. DMFT (WHO 1997 criteria) and RI (%) indices were used to evaluate the oral health state of the risk patients. Of the total number, 104 persons with the diagnosis of mental retardation and epilepsy were divided into four subgroups. The first two subgroups included patients only with diagnosed mental retardation (N=35) or epilepsy (N=6), the other two subgroups comprised patients with mental retardation and other diseases (N=33), epilepsy and other diseases (N=30). The last group included combinations of more different diagnoses (N=121). The age of patients at risk ranged between 18.6 - 61.3. The study was approved by the ethical committee of Masaryk University. The program package Statistica v. 8.0 (Statsoft Inc., Tulsa, USA) was used for statistical evaluation of the selected parameters.

### Results

Composition of the cohort is given in Table 1, Figure 1. The DMFT score and RI value (Table 2, Table 3, Figure 2 and 3) in patients with mental retardation were 16.66 and 34.37 respectively, in patients with mental retardation and combinations of more different diagnoses it was 17.48 (DMFT) and 32.36 (RI). The DMFT score in patients with epilepsy was 21.33 and RI value was 50.95. The DMFT score and RI values in patients with epilepsy and combinations with other diseases were 19.03 and 38.18 respectively; similarly to the group of more different diagnoses, 20.77 (DMFT) and 37.43 (RI). As to the individual components of the DMFT index, values of D teeth oscillated around 7 in all the groups, values of M teeth were high in relation to the age of patients, while number of F teeth was low in comparison to the D teeth. However, no statistically significant differences were found between the individual groups.

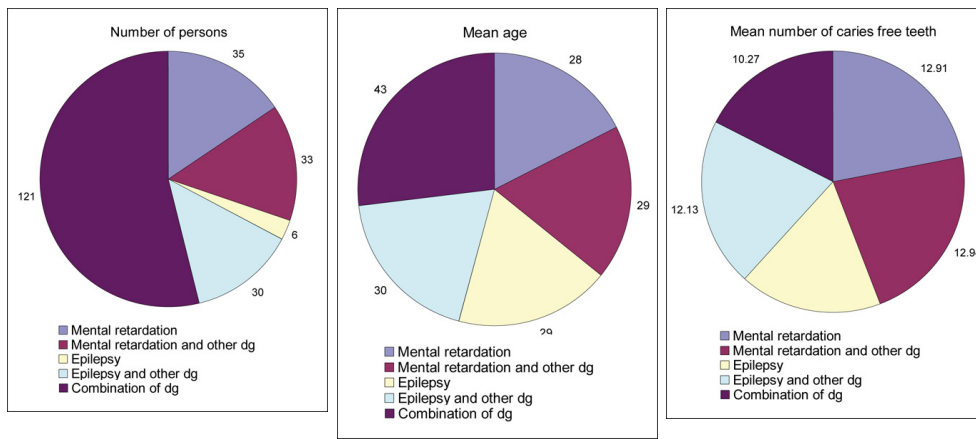


Fig. 1a-c: Mean age and number of patients with handicap. Number of caries free teeth

	<b>Mental retardation</b>	<b>Mental retardation and other dg</b>	<b>Epilepsy</b>	<b>Epilepsy and other dg</b>	<b>Combination of dg</b>
Number of persons	35	33	6	30	121
Mean age (± SD)	28 (± 8.02)	29 (± 7.83)	29 (± 4.99)	30 (± 11.37)	43 (± 18.33)
Mean number of caries free teeth	12.91	12.94	10.33	12.13	10.27

Tab. 1: Mean age and number of patients with handicap. Number of caries free teeth

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Number of persons	35	33	6	30	121
Mean age (± SD)	28 (± 8.02)	29 (± 7.83)	29 (± 4.99)	30 (± 11.37)	43 (± 18.33)
D teeth	7.46	7.64	6.17	7.67	7.55
F teeth	<b>3.43</b>	<b>3.64</b>	5.50	4.47	4.23
M teeth	5.77	6.21	9.67	6.90	9.00
DMFT	16.66	17.48	21.33	19.03	20.77

Tab. 2: Values of DMFT index and its components

	<b>Mental retardation</b>	<b>Mental retardation and other dg</b>	<b>Epilepsy</b>	<b>Epilepsy and other dg</b>	<b>Combination of dg</b>
Number of persons	35	33	6	30	121
Mean age (± SD)	28 (± 8.02)	29 (± 7.83)	29 (± 4.99)	30 (± 11.37)	43 (± 18.33)
RI (%)	34.37	32.36	50.95	38.18	37.43

Tab. 3: RI index in patients with handicap

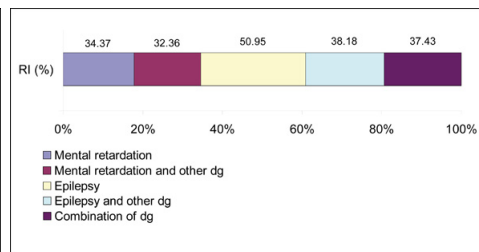
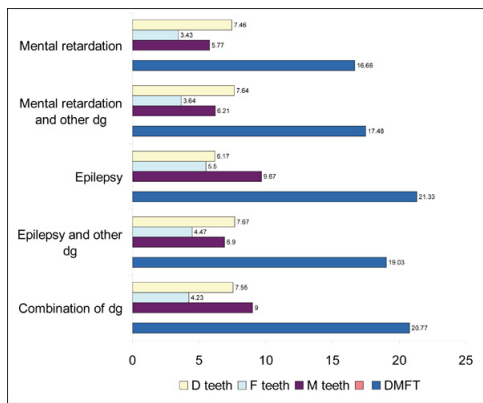


Fig. 2: Values of DMFT index and its components

Fig. 3. RI index in patients with handicap

Percentage values of level of treatment in patients with different diagnoses showed low level of treatment in all the studied groups. Percentage values of RI were the lowest in the group of patients with mental retardation in combination with another disease or mental retardation alone (32.36 and 34.37).

## Conclusions

Our study demonstrated relatively high DMFT scores and low RI values in patients with handicap (mental retardation, epilepsy). The results point to insufficient treatment of the patients with handicap and necessity to improve dental care in these patients. Our study is in accordance with finding of other authors stating that there is a wide range of caries rates among people with disabilities; but, overall, their rate is significantly higher than that of general population. Regular check-ups of patients with handicap and training of care-givers in oral hygiene maintenance are highly recommended.

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*This Poster was submitted by Assoc. Prof. Zdenka Halacková, MD, CSc.*

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Poster # 45

# ORAL HEALTH STATUS IN SELECTED RISK GROUPS OF PATIENTS TREATED UNDER GENERAL ANAESTHESIA

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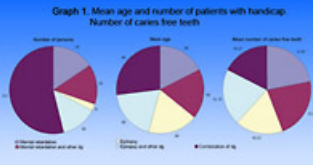
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**INTRODUCTION**

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**RESULTS**

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**CONCLUSION**

Our study demonstrated relatively high DMFT scores and low RI values in patients with handicap (mental retardation, epilepsy). The results point to insufficient treatment of the patients with handicap and necessity to improve dental care in these patients. Regular check-ups of patients with handicap and training of care-givers in oral hygiene maintenance are highly recommended.

Table 1. Mean age and number of patients with handicap. Number of caries free teeth

	Mental retardation	Mental retardation and other dg	Epilepsy	Epilepsy and other dg	Combination of dg
Number of persons	35	33	6	30	121
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Graph 2. Values of DMFT index and its components.

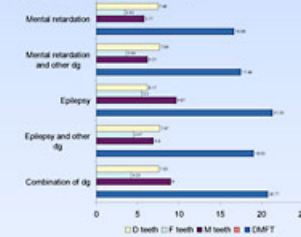


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Graph 3. RI index in patients with handicap



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\* presenting author  
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