ASTHMA AND CARIES

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I. INTRODUCTION

Asthma is one of the most common chronic diseases in childhood, often requiring long-term pharmacological management. Several studies have suggested a potential association between asthma, its medication, and increased risk of dental caries, mainly due to factors like reduced salivary flow, altered pH, and frequent sugar-containing medication vehicles.

II. AIM

The present study aimed to evaluated the impact of anti-asthmatic medication on dental caries prevalence in children aged 3–15 years at Hospital da Luz Lisboa. Three groups were compared: medicated asthmatics, non-medicated asthmatics, and healthy controls. Associations with diet, oral hygiene, and medication variables were also assessed.

II. MATERIAL AND METHODS

A descriptive observational study was conducted (Jan 2021–Feb 2022). Children were clinically examined for caries using the DMFT index. Data on medication, diet, and oral hygiene were collected via questionnaire and medical records. Statistical analysis used R software, with significance at $p<0.05$.

III. RESULTS

Among 159 children (52.8% boys, 47.2% girls), the highest caries prevalence was in medicated asthmatics (50.3%). The mean DMFT was higher in medicated asthmatics compared to non-medicated and healthy controls. Significant associations were found between caries and variables such as sugar intake, age of medication onset, and number of medications. Factor analysis highlighted frequent use of ICS with antihistamines and high sugar intake as significant predictors for caries.

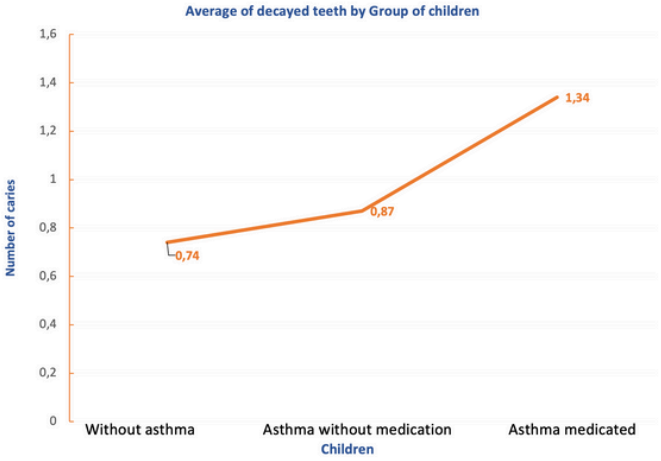

Figure 1 - Graphic of the average number of caries cavities per group of children.

Variables	Correlation coefficient	Sig.
Age	0,043	p>0,05
Sugar intake	0,244**	p<0,01
Oral hygiene habits	0,022	p>0,05
Number of years of medication	0,109	p>0,05
Age of onset of medication intake	0,225**	p<0,01
Number of medications taken	0,163*	p<0,05
Number of daily medication doses	0,149	p>0,05

* a correlation is significant at the 0,05 level (2-tailed).
** a correlation is significant at the 0,01 level (2-tailed).
Note: *Pearson correlation*.

Table 1 – Correlations between the number of decayed teeth and contextual variable.

IV. CONCLUSIONS

Anti-asthmatic medication appears to increase caries risk in asthmatic children, especially those under medication. Preventive oral health care is essential for this population.

REFERENCES