

interview including questionnaires to parents assessed diet (episodes of sugar intake) and oral hygiene habits of fluoride/toothpaste usage and frequency. Following intra-oral examinations, DMFT and dmft scores of both groups were recorded as well as plaque and gingivitis which were also assessed.

Results

A higher DMFT score among asthmatics of 1.2 ± 1.8 (SD) and 0.3 ± 0.8 among non-asthmatic patients ($p < 0.05$) was observed. Comparison of dmft scores between the two groups showed no significant difference. Symptoms of dry mouth were more frequently severe in asthmatics than the control group. Asthmatic children had more bleeding, gingivitis and a higher consumption of sugary drinks than healthy children ($p < 0.05$). The asthmatic group of children were more frequently mouth breathers than healthy children ($p < 0.05$). Average daily F-toothpaste brushings did not differ between groups. Other oral hygiene habits (mouthrinses, F-gels etc.) were not different between groups ($p > 0.05$).

Conclusion

Children with asthma at 6–12 years of age have a higher caries-susceptibility compared with children without asthma. Children with asthma have a higher prevalence of bleeding, gingivitis, a higher intake of sugary drinks and are more frequently mouth breathers than children without asthma.

SESSION 08—ORAL MEDICINE AND PATHOLOGY/SPECIAL NEEDS PATIENTS/SYNDROMES AND GENETICS

08.1 Oral lesions in Brazilian children and adolescents: A retrospective study

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Aim

To describe the most common oral lesions biopsied in children and adolescents aged 7–19 years.

Methods

In this retrospective study data was obtained from 14,714 biopsies received over 15 years in the Oral Pathology Service, São Leopoldo Mandic Institute and Research Center, Campinas, Brazil. The data were revised and compiled for age, gender and histopathological diagnosis. The patients were divided into 2 age groups: 7–12 years and 13–19 years. The lesions were compiled into 10 diagnostic categories. Data were analysed by Mann–Whitney, Chi square and Fisher's exact tests.

Results

A total of 836 biopsied oral lesions from paediatric patients were compiled. The majority of the lesions occurred in the second age group of patients and oral lesions increased with age (Chi square, $p < 0.0001$). There was no significant difference between male and female patients (Chi square, $p > 0.05$). The diagnostic category with the largest number of lesions was salivary gland pathology (32.9 %), followed by traumatic, reactive and inflammatory lesions (20.3 %) and odontogenic cysts (12.6 %). In addition, the most frequently diagnosed lesion was mucocoele.

Conclusions

This survey shows that the results are similar to those reported in the literature regarding oral lesions commonly found in children and

adolescents. Most oral lesions were diagnosed as benign and only a very small part of the sample consisted of malignant cases.

08.3 Evaluation of in vitro cytotoxicity of root repair materials on 3T3 cells

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Aim

To assess and compare the cytotoxicity and the gelatinolytic activity of MMP-2 and MMP-9 produced by 3T3 fibroblasts after stimulation with seven different endodontic materials.

Methods

3T3-fibroblasts were incubated directly with ortho MTA, retro MTA, Bioaggregate, Biodentine, MTA plus, MTA Angelus and MTA CerKamed for 24 h and 7 days. The cytotoxicity was determined using an MTT assay. Gelatin zymography was performed to determine the activities of MMP-2 and MMP-9. The Kruskal–Wallis test was used to compare the results between groups. The Mann–Whitney post hoc multiple comparisons U test was used to assess the causes of differences between groups. Data were analysed for each group using the Wilcoxon sign test. The significance level used was $p < 0.01$.

Results

The difference of mean cell viability after 1 day and 7 days was significantly different ($p:0.003$; $p < 0.01$). Biodentine revealed the lowest level of cell viability compared with the other materials on both days. Ortho MTA, MTA CerKamed, and MTA Plus induced a significant reduction in cell viability. However, Bioaggregate showed increased cell viability. Specific characterisation of MMPs in cell culture demonstrated that MMP-2 (62 kPa) in the cell culture supernatants by gelatin zymography showed induced expression in 4 out of 7 groups. No MMP-9 expression was observed.

Conclusions

The results of the present study showed that ortho MTA and Biodentine had minor cytotoxicity. No cytotoxicity was observed with retro MTA, Bioaggregate, MTA Angelus, MTA plus, and MTA CerKamed. However, Bioaggregate showed better cell viability compared with other MTA-derived materials.

08.4 Management of oral graft-versus-host disease (OGvHD) in the paediatric patient

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Background

Caused by a set of immunologically-mediated reactions by cells genetically disparate to the transplant recipient, graft-versus-host-disease is a potential complication following an allogeneic bone marrow or stem cell transplant. Although oral manifestations are reported in up to 90 % of patients with graft-versus-host disease, little literature exists which documents management protocols in the paediatric patient. This case report describes the management of OGvHD in two paediatric patients.