



Association of Contact Type between Primary Molars and Dental Caries

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Objective

- To investigate the association of the contact type between primary molars, and caries status in children along with other risk factors (fluoride, diet, and plaque scores) over 12 months.

Materials and Methods

- Healthy and cooperative patients between age 3-10 were enrolled
- Clinical exam completed at baseline and at 12 month follow-up
 - Contact Type (OXIS)
 - Presence of clinical and radiographic caries (dmft)
 - Plaque indices for upper and lower teeth
- Parents were asked questions about diet and fluoride exposure
- Changes in these factors were compared with changes in dmft using a multivariate linear regression analysis
- Significance level set at $P < .05$

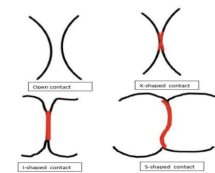


Figure 1. OXIS classification of contact types

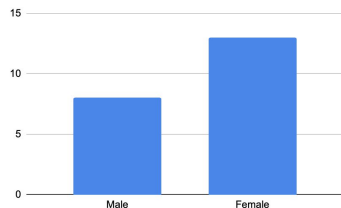


Figure 2. Participant Gender. 8 males and 13 females presented at follow-up.

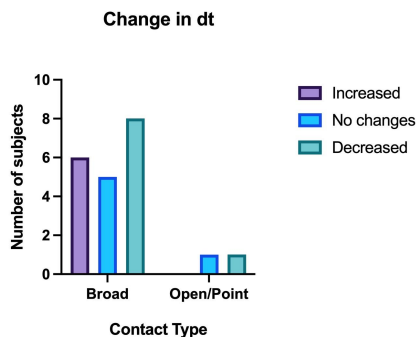


Figure 4. Association of change in dt and contact type. No statistically significant difference was found between change of dt and contact type ($P > .9999$, Fisher's exact)

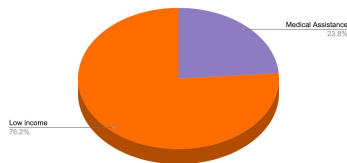


Figure 3. Patient Insurance Coverage. 23.8% of the patients at follow up had medical assistance and 76.2% were low-income uninsured.

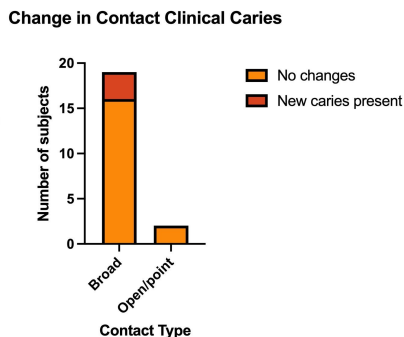


Figure 5. Association of change in clinical caries and contact type. No statistically significant difference was found between change in clinical caries and contact type ($P > .9999$, Fisher's exact)

Results

- 108 patients evaluated at baseline and 21 patients presented for 12 month follow-up
- Average age of patients at baseline was 6.1 years
- Proximal contact type between primary molars not significantly associated with change in dmft.
- Fluoride exposure and diet scores not significantly associated with change in dmft
- Plaque index on upper teeth not significantly associated with change in dmft
- Plaque index on lower teeth was significantly associated with change in dmft ($P = .0134$)

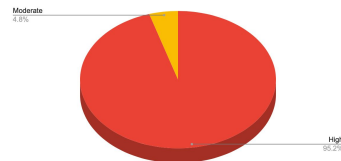


Figure 6. Caries Risk Assessment at Follow-Up. 4.8% of the patients were moderate caries risk and 95.2% were high caries risk at follow-up. None were low caries risk.

Conclusions

- Contact type does not seem to associate with overall change in caries status over 12 months
- Large scale studies with more subjects will be needed to confirm the findings