

## **Impact of maternal xylitol consumption on mutans streptococci, plaque and caries levels in children.**

*Alamoudi NM, Hanno AG, Sabbagh HJ, Masoud MI, Almushayt AS, El Derwi DA.*

### **Abstract**

#### **AIM:**

The present study was designed to determine whether maternal xylitol consumption through regular chewing of xylitol gums can affect the salivary mutans streptococci (MS), dental caries, and dental plaque levels of their children.

#### **METHOD:**

Study sample included 60 mother and child pairs with high salivary mutans streptococcus (MS) levels. Samples were randomly divided into experimental group (30 pairs) and control group (30 pairs). Mothers in the experimental group received xylitol chewing gum treatment three times/day for three months, whereas the controls received fluoride varnish. Both groups received oral hygiene instructions, dietary counseling and restorative treatment. All children were examined after 6, 12 and 18 months from the initiation of the study to assess caries, plaque and salivary mutans streptococcus (MS) levels.

#### **RESULTS:**

Showed that at 18 month the percent of children with high streptococcus levels in the control significantly increased when compared to the increase in the experimental group. Throughout the study, dmft scores of experimental children showed marginal non significant increase compared to controls that showed higher scores. Plaque scores revealed statistically non significant decrease among both groups.

#### **CONCLUSIONS:**

Maternal xylitol consumption provided better preventive outcomes on salivary (MS) levels compared to fluoride varnish treatments.