Lollipops May Reduce Tooth Decay

A recent study, published by the European Academy of Pediatric Dentistry, demonstrated that sugar-free lollipops containing licorice root extract significantly reduced the bacteria that causes tooth decay, specifically in pre-school children with high-risk of tooth decay.

The study, funded by the Research and Data Institute of the affiliated companies of Delta Dental of Michigan, Ohio, Indiana, Tennessee, Kentucky, New Mexico and North Carolina, analyzed 66 preschool students ages 2 to 5 enrolled in the Greater Lansing Area Head Start Program. Each student received a lollipop for 10 minutes twice daily for three weeks.

"Dental decay is one of the most common childhood diseases with more than half of children ages 5 to 17 having had at least one cavity or filling," said Jed J. Jacobson, D.D.S., M.S., M.P.H., chief science officer at Delta Dental. "We are working to find simple, effective regimens that will encourage prevention and control of dental disease. While the results of this pilot clinical trial are encouraging, more research is needed to confirm these early findings."

Results showed a significant reduction in Streptococcus mutans (S. mutans), the primary bacteria responsible for tooth decay, during the three-week period when the lollipops were being used and lasting for an additional 22 days before beginning to rebound.

Using a saliva test, the amount of S. mutans in the patient’s mouth was measured before and during the three-week period where lollipops were used, as well as for several weeks thereafter.

"The use of the licorice root lollipops is an ideal approach as it will stop the transfer and implantation of the bacteria that cause dental decay from mothers to their infants and toddlers," said Martin Curzon, editor-in-chief, European Academy of Pediatric Dentistry. "It also has the merit of being a low cost-high impact public dental health measure."

The lollipops, manufactured by Dr. John’s Candies of Grand Rapids, Mich., were developed using FDA-approved materials by Dr. Wenyun Shen, a microbiologist at the University of California Los Angeles (UCLA), and C3 Jian, Inc., a research and development company in California. The orange-flavored, sugarless lollipops contain extract of licorice root (Glycyrrhiza uralensis), which targets and is thought to kill the primary bacteria (Streptococcus mutans or S. mutans) responsible for tooth decay.