

**A CORRELATION STUDY OF SECRETORY IMMUNOGLOBULINS  
(s.IgA) LEVEL AND CARIOGENIC BACTERIA IN CHILDREN  
WITH SECC AND CARIES FREE CHILDREN AND THEIR  
CORRESPONDING MOTHERS**

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**ABSTRACT**

Early childhood caries (ECC) is recognized as an infectious disease. The first step in its development is primary infection by the bacterium *S. mutans* which has been identified as the primary etiologic factors in dental caries. Lactobacilli were also found to play a role in the progression of disease. However, the underlying mechanism of immune response to caries is unclear. The association between secretory IgA (s.IgA) and cariogenic microorganisms is still controversial.

The aim of this study was to correlate the level of cariogenic bacteria and salivary IgA in caries free children, and children with SECC and their corresponding mothers.

Sixty children and their mothers attending the dental clinic in King Abdulaziz University participated in our study. Their age ranged from 3 - 5 years. The study groups consisted of thirty children with SECC and a control group consisting of thirty caries free children.

Children together with their mothers were examined and their caries level was recorded. Stimulated saliva was collected from each participant for bacterial and immunological assessment. *S. mutans* and Lactobacilli counts in each sample were determined, using the Dento cult method and the secretory IgA (s. IgA) level was assessed by ELISA test.

A significant correlation has been shown between mothers and children with SECC with respects to salivary *S. mutans*. A positive high correlation was found between s. IgA of mothers and children in both groups

Key words: secretory IgA, SECC, *S. mutans*, saliva, cariogenic. bacteria, primary molars