

KARIOGENITAS SUSU FORMULA BERDASARKAN PERTUMBUHAN *STREPTOCOCCUS SOBRINUS*

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CARIOGENICITY ; INFANT FORMULAS

KKK KK KG 13/12 Ste k

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Background: Caries in children often called Baby Bottle Tooth Decay which affects about 6% children under 3 years old. Infant formulas are often associated with Baby Bottle Tooth Decay. Infant formulas can be divided into 3 categories, which is infant formula based on cow's milk, soy infant formula, and hypoallergenic infant formula. Infant formula based on cow's milk containing carbohydrate lactose, soy infant formula and hypoallergenic containing carbohydrate that depends on brand, such as sucrose, corn starch, and glucose polymers. Sucrose is one of the main cause of caries and had already been demonstrated in animal experiment. Lactose is known as a non-cariogenic carbohydrate. **Objective:** To find out the type of infant formula that has the highest cariogenicity between infant formula based on cow's milk, soy infant formula and hypoallergenic infant formula based on growth of *Streptococcus sobrinus*. **Methods:** This research using experimental laboratories. The study was conducted with 100 children surveyed to determine kinds of milk that are frequently consumed. The most commonly consumed milk is used for research. Then, milk was exposed to *Streptococcus sobrinus*, and incubated (37°, 5% CO₂, 18 hours). 10µl was taken and cultured on TYC agar and incubated (37°, 5% CO₂, 2 days). Datas are calculated using independent T-test method. **Result:** From the experiment can be known a significant difference growth of *Streptococcus sobrinus* between infant formula based on cow's milk and soy infant formula and hypoallergenic infant formula, with average 270.0000 for infant formula based on cow's milk, 63.0000 for soy infant formula and 26.1429 for hypoallergenic infant formula. From this result can be concluded that infant formula based on cow's milk is more cariogenic than soy infant formula and hypoallergenic infant formula.

Keywords: Cariogenicity, Infant Formula, *Streptococcus sobrinus*