### Title: In vitro evaluation of the antiadhesion properties of probiotics against caries pathogens

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**Abstract:**

**Introduction:** Probiotics are viable microorganisms which improve human health by reducing or inhibiting the number of pathogenic microorganisms. The use of probiotics to improve oral health is highly regarded. The aim of this study is investigating the antiadhesion properties of probiotics on caries pathogens.

**Method:** In this study, four strains of lactobacilli (\( L.\text{casei}, L.\text{paracasei}, L.\text{reuteri}, L.\text{plantarum} \)) as probiotics and two strains of streptococcus (\( S.\text{mutans}, S.\text{sobrinus} \)) were used as caries pathogens. Their adherence and biofilm formation were initially investigated by microtitre plate assay and then the effect of probiotics on adhesion of pathogens was evaluated using microtitre plate assay.

**Results:**

\( S.\text{mutans} \) and \( S.\text{sobrinus} \) indicated strong and intermediate adherence respectively. All the lactobacilli were significantly reduced the adhesion of pathogens. The effectiveness of lactobacilli can be explain this way: \( L.\text{plantarum} \geq L.\text{casei} \geq L.\text{paracasei} \geq L.\text{reuteri} \). It should be noted that the lactobacilli were mostly reduced the adhesion of \( S.\text{mutans} \).

**Conclusions:** Observations showed that probiotics had antiadhesion effect in the caries pathogens.

**Probiotic, Streptococcus mutans, Streptococcus sobrinus, biofilm, antiadhesion activity.**

**Presentation:** Poster