

## عنوان مقاله:

EXPERIMENTAL EVALUATION THE EFFECT OF IRON SALT ON THE INHIBITION OF STREPTOCOCCUS MUTANS

## محل انتشار:

نوزدهمین کنگره بین المللی میکروب شناسی ایران (سال: 1397)

تعداد صفحات اصل مقاله: 1

# نویسندگان:

Mohammad Motamedifar - Department of Bacteriology and Virology, School of Medicine, Shiraz University of Medical Sciences Shiraz, Iran

Yalda Malekzadegan - Department of Bacteriology and Virology, School of Medicine, Shiraz University of Medical Sciences Shiraz, Iran

Elham Rastegar - Department of Bacteriology and Virology, School of Medicine, Shiraz University of Medical Sciences Shiraz, Iran

Sahar Sorourian - Student Research Committee, Shiraz University of Medical Sciences Shiraz, Iran

### خلاصه مقاله:

Background and Aim: Dental caries is a common infectious process that occurs by Streptococcus mutans. Considering the high frequency of dental caries and iron starvation in Iran, the study aimed to investigate the inhibitory effect of iron salts including iron sulfate and iron acetate against Streptococcus mutans in vitro.Methods:In this study, aqueous solutions of iron sulfate and iron acetate were prepared. Antibacterial effects of different concentrations of iron sulfate and iron acetate on Streptococcus mutans was evaluated using disk diffusion and broth micro-dilution methods. The minimum inhibitory concentration (MIC) and minimum bacteriocidal concentration (MBC) if these salts for Streptococcus mutans were determined. Then, the results were compared with the results of inhibitory effects of penicillin and chlorhexidine as controls.Results:MIC and MBC of iron sulfate solution was higher than those for penicillin and chlorhexidine (p<0.001) while, there was not statistically significant differences between the MIC and MBC of sulfate acetate solution, penicillin and chlorhexidine. In concentrations of 25 and 50 µg/mL inhibitory zone of iron sulfate in disk diffusion method was more than that for iron acetate solution.Conclusion: Iron sulfate and iron acetate solutions had antibacterial activity against Streptococcus mutans in the culture medium, so these salts was effective in reducing the range of MIC and MBC

**کلمات کلیدی:** Streptococcus mutans, Iron sulfate, Iron acetate

لینک ثابت مقاله در پایگاه سیویلیکا:





