

# Staphylococcus aureus nasal carriage and related risk factors in diabetic foot patients

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## INTRODUCTION

Infections are the major cause of increased mortality and morbidity rate in diabetic foot patients. There are little data in literature about the effects of *S. aureus* nasal carriage on DF infection, the risk factors that influence nasal carriage and its incidence in diabetics. We aimed to detect of the incidence, risk factors and relationship between wound culture and *S. aureus* nasal carriage in diabetic patients who have DF with this study.

## MATERIAL and METHODS

The study was designed as a prospective, cross-sectional, controlled study. Group 1(n=40): nondiabetic patients, Group 2(n=40): diabetics patients without DF, Group 3: (n=40): diabetics patients with DF. The incidence of *S. aureus* nasal carriage and effects of determined factors to nasal carriage were investigated in these three groups. The relationship between nasal carriage and wound culture was analyzed in the last group.

## RESULTS

We found the incidence of *S. aureus* nasal carriage 17.5%, 20% and 10% in the groups 1 to 3 respectively (P=0.47). Determined parameters (age, sex, usage of insulin/oral anti-diabetic drugs, time of diabetes, level of HbA1c, levels of fasting and after meal glucose) did not affect the *S. aureus* nasal carriage. We did not detect the relationship between wound cultures and nasal swap cultures in group 3. We observed no effect of the history of antibiotic usage in the last six months and existence of hospitalization or operation on *S. aureus* nasal carriage.

## DISCUSSION

We detected that having diabetes and/or DF did not alter the risk of *S. aureus* nasal carriage and also carriage did not affect the results of wound culture. Better designed studies are needed for the detection of possible relationship between the factors belongs to the patients who have higher risk for *S. aureus* infections and nasal carriage.

