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## Recurrent Respiratory Infections In Down Syndrome And Control Subjects: A Prospective Study Of Bacterial Adhesion

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Abstract

Full Text

References

**Background:** bacterial adhesion is the first crucial step in bio film formation, which often serves as a source for recurrent infections. Since many individuals with Down syndrome have recurrent respiratory tract infections, we studied the bacterial adhesion in a group of them in comparison to control subjects.

**Study design:** prospective, controlled study.

**Methods:** we stratified all subjects into four groups for the presence/absence of recurrent respiratory infections. Exfoliated buccal epithelial cells were incubated with *Staphylococcus aureus* ATCC 12598 and the mean number of adhering bacteria per cell was counted under scanning electron microscope.

**Results:** the Down syndrome and the control groups prone to recurrent respiratory infections showed both higher adhesion values in comparison to groups without recurrent respiratory tract infections. Moreover, the Down subjects without recurrent respiratory infections had bacterial adhesion values to buccal epithelial cells similar to control subjects.

**Conclusions:** The increased bacterial adhesion values in Down and control subjects prone to recurrent respiratory tract infections is probably attributable to an increased expression of cell receptors for bacteria.

### Key words:

Bacterial adhesion; *Staphylococcus aureus*; buccal cells; Down syndrome; recurrent respiratory tract infections.

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