Chlorhexidine inactivation by saliva.

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Abstract
Chlorhexidine mouth rinsing is commonly used for oral flora reduction. Indigenous microorganisms (viridans streptococci) are significantly suppressed, while "hospital-acquired" gram-negative bacilli are not affected in vivo. To explain the discrepancies between good in vitro and poor in vivo activity of chlorhexidine, minimum bactericidal concentration values for 120 isolates were studied by means of a standard dilution method in fresh whole saliva, broth, and glucose 5%. Both saliva and broth significantly reduced the bactericidal activity of chlorhexidine against all microorganisms tested as compared to glucose 5% (p less than 0.01). Minimum bactericidal concentrations for indigenous flora were significantly lower than the values obtained for the "hospital-acquired" microorganisms (p less than 0.05). These observations of chlorhexidine inactivation by saliva may explain why chlorhexidine mouth rinsing is of limited value in decontaminating the oral cavity.

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