Spectrum of antimicrobial activity associated with ionic colloidal silver.


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Abstract

OBJECTIVES: Silver has historically and extensively been used as a broad-spectrum antimicrobial agent. However, the Food and Drug Administration currently does not recognize colloidal silver as a safe and effective antimicrobial agent. The goal of this study was to further evaluate the antimicrobial efficacy of colloidal silver.

DESIGN: Several strains of bacteria, fungi, and viruses were grown under multicycle growth conditions in the presence or absence of ionic colloidal silver in order to assess the antimicrobial activity.

RESULTS: For bacteria grown under aerobic or anaerobic conditions, significant growth inhibition was observed, although multiple treatments were typically required. For fungal cultures, the effects of ionic colloidal silver varied significantly between different genera. No viral growth inhibition was observed with any strains tested.

CONCLUSIONS: The study data support ionic colloidal silver as a broad-spectrum antimicrobial agent against aerobic and anaerobic bacteria, while having a more limited and specific spectrum of activity against fungi.