A comparison of the sensitivity of wound-infecting species of bacteria to the antibacterial activity of manuka honey and other honey.

Willix DJ¹, Molan PC, Harfoot CG.

Abstract
Both honey and sugar are used with good effect as dressings for wounds and ulcers. The good control of infection is attributed to the high osmolarity, but honey can have additional antibacterial activity because of its content of hydrogen peroxide and unidentified substances from certain floral sources. Manuka honey is known to have a high level of the latter. Seven major wound-infecting species of bacteria were studied to compare their sensitivity to the non-peroxide antibacterial activity of manuka honey and to a honey in which the antibacterial activity was primarily due to hydrogen peroxide. Honeys with activity in the middle of the normal range were used. A comparison of the median response of the various species of bacteria showed no significant difference between the two types of activity overall, but marked differences between the two types of activity in the rank order of sensitivity of the seven bacterial species. The non-peroxide antibacterial activity of manuka honey at a honey concentration of 1.8% (v/v) completely inhibited the growth of Staphylococcus aureus during incubation for 8 h. The growth of all seven species was completely inhibited by both types of honey at concentrations below 11% (v/v).

PMID: 1447054 [PubMed - indexed for MEDLINE]