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In-vitro susceptibility of methicillin-resistant *Stayphylococcus aureus* to honey

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Abstract

Wound infections caused by methicillin-resistant *Staphylococcus aureus* (MRSA) is becoming much complicated and costly to treat as antimicrobial resistance is quite common. Twenty five MRSA strains isolated from infected wounds and three ATCC reference strains were evaluated for their susceptibility to locally produced black seed (*Nigella sativa*), beri (*ZiziphusJujuba*) and shain honey (*Plectranthus rugosus wall*) by agar incorporation assay. Medically graded manuka honey (UMF 21^{+}) was included as control. Locally produced black seed honey inhibited all clinical isolates at mean MIC of 5.5% (v/v), whereas manuka honey at mean MIC of 4.4% (v/v). The other two locally produced honey; beri and shain honey inhibited these isolates at 6.4% and 10.4% (v/v) respectively. The result of the study has demonstrated that indigenous black seed honey has comparable antibacterial activity to manuka honey and thus offers a good new addition to the existing honey resource for the treatment of wound infections.

Keywords

Wound infectionHoneyAntibacterial activityMethicillin-resistant*Staphylococcus aureus*Black seed honey