Antibacterial Activities of Natural Iraqi and Commercial Honey Against Klebsiella pneumoniae

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Abstract

This study was to compare the antibacterial activity of two types of localy natural honey (citrus flowers honey, eucalyptus honey) and two types of the commercial honey (sinbola honey and shafi honey) against Klebsiella pneumonia were evaluated, and testing the effect of their in increasing the efficiency of antibiotics Ampicillin / sulbactum (SAM) 20µg, Amikacine (AK) 30µg, Augmenten (AUG) 30µg, Chloramphenicol (C) 30µg, Gentamicin (GM) 10µg in inhibiting K. pneumoniae. The results indicated that the natural honey significantly superiority on commercial honey in inhibiting growth for K. pneumoniae, the diameter of inhibition zone of citrus flowers honey and eucalyptus honey was 23, 19 mm respectively while for sinbola and shafi honey were 8 and 9 mm respectively. Also the results showed that the Citrus Flowers honey exceeded significantly on eucalyptus honey, the inhibition diameters of their were 23 mm and 19 mm respectively. The results indicated that the inhibitory effect of natural honey was closely related to antibiotics, and it gave a positive result when compared to the standard tables of the inhibition of antibiotics. The combination of natural and commercial honey with antibiotics increased the efficiency of antimicrobial activity of antibiotics by increasing the diameters of bacterial growth inhibition if compared with the diameters given by antibiotics.

Keywords

Honey, antibiotics, Klebsiella pneumonia.

activity against Streptococcus pneumoniae and Streptococcus pyogenes as obtained in this research. Honey and Lemon juice had more inhibitory effect against the tested bacterial isolates than the commonly used antibiotics especially Azithromycin and Amoxicillin-Clavulanic acid. Honey and Lemon juice can therefore be used as an alternative medicine in the treatment of respiratory tract infections. “The Antibacterial Activity of Honey and Lemon Juice against Streptococcus pneumoniae and Streptococcus pyogenes Isolates from Respiratory Tract Infections”. Acta Scientific Microbiology 1.3 (2018): 22-27. The Antibacterial Activity of Honey and Lemon Juice against Streptococcus pneumoniae and Streptococcus pyogenes Isolates from Respiratory Tract Infections. The isolates identified and confirmed from these samples include 15 Klebsiella pneumoniae (26.8%), 14 Staphylococcus aureus (25.0%), 2 Haemophilus influenzae (3.57%), 12 Pseudomo-nas aeruginosa (21.4%), 7 Streptococcus pneumonia (12.5%), 6 Streptococcus pyogenes (10.7%). However, for the purpose of this research, more focus will be on Streptococcus pneumoniae and Streptococcus pyogenes. Klebsiella pneumoniae, a
common gut bacteria, causes problems when it moves outside the gut and causes infection. Learn about its symptoms and treatment. Klebsiella pneumoniae can hit other parts of your body, too. For example, your surgical wound could be infected. You could also get an infection in your The antibacterial activity of Manuka and Jambhul honey was analysed using Agar cup method for varying concentrations of 25%, 50%, 75% and 100%. The Minimum inhibitory concentration (MIC) of Manuka and Jambhul honey against the isolates was determined using Agar dilution method. Results: MIC was found to be in the range of 30%-40% (v/v) for both honey. Conclusion: Thus, the study showed that honey may be an effective antimicrobial agent against ESBL producing Klebsiella pneumoniae isolated from burn wound infections. It also proved that antimicrobial activity of Indian Jambhul honey is comparable to New Zealand's Manuka honey. Keywords: ESBL, Manuka honey, Jambhul honey, E-test, MIC, TPC. Keywords: antibacterial activity, Iraqi plants, Klebsiella pneumoniae, Staphylococcus epidermidis. Al-Sa'ady AT (2020) Antibacterial screening for five local medicinal plants against nosocomial pathogens: Klebsiella pneumoniae and Staphylococcus epidermidis. Eurasia J Biosci 14: 553-559. Antibacterial activity of five types of plants was tested against S. epidermidis and K. pneumoniae. The bacterial suspension was prepared and standardized comparing to McFarland standard tube. Last decades, many natural substances have been determined as a source of the effective antibacterial agents and the studies have focused on the plants as potential antimicrobial agents. Plants are rich in a broad spectrum of secondary metabolites such as, alkaloids, 554.