

Effect of temperature on the antimicrobial activity of lime juice-honey syrup on certain bacterial isolate

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<p>Received: 15.02.2016 Accepted: 24.03.2016 Published : 11.04.2016</p> <p>Editor: Dr. Arvind Chavhan</p> <p>Cite this article as: Unegbu Chika C, Njoku SC, Ajah Obinna and Nnaoma IE (2016) Effect of temperature on the antimicrobial activity of lime juice-honey syrup on certain bacterial isolate. <i>International J. of Life Sciences</i>, 4(1): 57-61.</p> <p>Copyright: © 2016 Author(s), This is an open access article under the terms of the Creative Commons Attribution-Non-Commercial - No Derivs License, which permits use and distribution in any medium, provided the original work is properly cited, the use is non-commercial and no modifications or adaptations are made.</p>	<p>Traditionally in Nigeria, lime juice (<i>Citrus aurantifolia</i>) is added to honey and often used as a cough medicine. The present study is aimed at determining the effect of the temperature on the mixture of lime juice and honey and its antimicrobial activity on selected bacteria isolates. The lime juice is squeezed out of the fruit and then mixed with honey in the ratio of 1:1, 2:1 and 1:2 respectively, the mixture are then heated for 15minutes at various temperature (40, 60, 80 and 100°C). The result shows that the mixture still has antibacterial activity on heating. The heating temperature of 40°C, 60°C and 80°C at the ratio of 1:1 and 2:1 showed zones of inhibition when compared with the unheated but the heating temperature of 100°C has no zone of inhibition on the isolates. This indicates that heating can affect the antibacterial activity of the mixture and the evidence suggests that the lime is majorly responsible for the antibacterial activity.</p> <p>Keywords: Antibacterial, bacteria isolate temperature, lime juice and honey</p>
	<p>INTRODUCTION</p> <p>Several medicines or substances are used to suppress or relieve coughing. Anti-tussives agents are said to work by reducing the cough reflex. It is regarded as an antimicrobial. An antimicrobial is a substance that kills or inhibits the growth or action of microbes such as as bacteria, fungi, protozoa or viruses. Various types of antimicrobial agents includes antibiotics which are generally used against bacteria are used specifically for treating viral infection, antifungal are used to treat fungal infections, some of the side effects of these antimicrobial agents can be life threatening, if the drugs are not used properly (Anderson eta l., 2008).</p> <p>According to WHO, honey is recommended for coughs in developing countries where is limited acces to medicine. So although the evidences isn't strong, it suggested there may be an effect in acute cough in children</p>