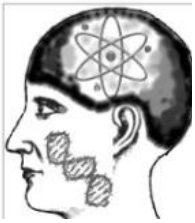
*Journal of Complementary and Alternative Medical Research*
*1(1): 1-6, 2016, Article no.JOCAMR.27608*

**SCIENCEDOMAIN *international***
www.sciencedomain.org



# Comparing the Antimicrobial Potential of Sahara Honey from Algeria and Manuka Honey against Urogenital Microorganisms

Moussa Ahmed, Saad Aissat, Mohamed Amine Aissa
and Noureddine Djebli
*Pharmacognosy and Api-Phytotherapy Research Laboratory, Mostaganem University Algeria.*

## ABSTRACT

**Aims:** Various studies have been conducted to investigate the antimicrobial properties of honey from different parts of the world. To date; no extensive studies of the antimicrobial properties of Sahara honey (SH) on urogenital microorganisms have been conducted. The objectives of this study were to conduct such studies and to compare the antimicrobial activity of SH with Manuka honey (MH).

**Place and Duration of Study:** This study was conducted in the experimental laboratories at Pharmacognosy and Api-Phytotherapy Research Laboratory, Mostaganem University,Algeria, between April to May 2015.

**Methodology:** Several unifloral SH and MH were analyzed to determine their total phenolic, colorand antimicrobial capacities. The Folin-Ciocalteu assay was used to measure phenol content. Two different assays were performed to evaluate the antimicrobial potential of the honey samples: agarwell and disk diffusion assay. The honey samples were tested without dilution, and at 50 and 25% (w/v) dilution.

**Results:** The means of the total phenolic contents of SH and MH were 82.8±0.23 and 143.5±0.62mg/100 g honey as Gallic acid equivalent, respectively. Initial screening with the agar-well and diskdiffusion assay demonstrated that undiluted honey had greater antimicrobial activity against all isolates tested. The zones of inhibition values of SH and MH against different strains ranged from 15 to 27.5 mm and 16.5–24 mm respectively. In addition, honey showed inhibition zone larger toward entire isolates when mixed. This is the first report on antimicrobial effect of SH against urogenital microorganisms.

**Conclusion:** This work demonstrates the potential of Sahara honey is a very good trend in the treatment for polymicrobial infections.

**Keywords:** Antimicrobial activity; Sahara honey; Manuka honey.