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Review of role of honey in a combat against superbugs: The microbes that show an antibiotic resistance

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Role of honey in combating microbial infections is widely studied and microbiologists interested in understanding its role fighting pathogenic infections. Different types of honey are known to have healing properties. Alfalfa honey treats cardiac issues. Blueberry has been reported to have antibacterial properties. Eucalyptus honey is good for respiratory disorders of over 300 types. Honey is known to have antibacterial/antiseptic properties. Organic raw honey releases H_2O_2 , when it is in contact with moisture. Hydrogen peroxide is known to have both antibacterial and fungicidal properties. Darker honey has more antioxidant which eliminates free radicals. Antioxidants help improving brain functioning. Honey maintains the moisture in the wound and the production of hydrogen peroxide helps in the healing process enzymatically. The growth of the microbes is hindered owing to low pH levels and high osmolality of honey. The ever increasing antibiotic resistance to antimicrobial agent is citing challenges in the field of public health. The paradigm is shifting to natural respite in the form of antioxidant methods using plant. Plant based products like honey, tulsi and natural unheated honey is reported to have a strong antibacterial activity against broadly segregated class of pathogens, oral and food spoilage causing bacteria. Apitherapy, therefore interests the young researches for analyzing the wide spectrum role of different types of honey in repair and nutritional support for human health. Role of honey in combating diseases pertaining to bacterial infections, surgical wounds healing to avert infections, to promote the healing processes have been established. The molecular basis of wound healing is related to secretion of TGF- α and by monocyte stimulation. Presently, we need to evaluate the role of honey in helping antibiotics combating against these superbugs. It certainly has a role in increasing antibiotic properties of antibiotics used to fight any infection.

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