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A Review of Honey and its Pharmacological Actions

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ABSTRACT

As we all know very well that honey is a very common food substance which is easily available to us. Due to the sweet taste its acceptance is also good. But as a boon to us honey also shows a variety of pharmacological actions like antioxidant, antidiabetic, would heal nature, antitussive and other properties. Flavonoids and polyphenols, which act as antioxidants, are two main important and bioactive molecules present in honey. Traditionally honey is used as nutraceutical agent, but nowadays it is widely used as a natural therapeutic agent for various medical purposes. Sufficient evidences are present, which proves the importance of honey and its uses.

Keywords*: Honey, Antioxidant, Antidiabetic, Antitussive ,Nutraceutical agent .*

INTRODUCTION

Honey is a natural product formed from nectar of flowers by honeybees (*Apis mellifera*; Family: Apidae) [1].

Honey is a insect-derived natural product, and it contains nutritional, cosmetic, therapeutic, and industrial values [2,3]. There is no need to refrigerate Honey because it never spoils, and it can also be stored unopened at room temperature in a dry place [4–5]. Nowadays, information on the usage of honey for the cure of many human diseases can be found in general magazines, journals which are suggesting a wide variety of unknown activities [6].

Honey is a natural product that has been widely used for its therapeutic effects.
Honey is composed of [7–8]:

1) Fructose
2) Glucose
3) Fructo-oligosaccharides
4) Amino acids
5) Vitamins
6) Minerals
7) enzymes

Bioactive Components of Honey

Honey has a variety of essential biological bioactive compounds which are as follows –

1) Vitamins A (Retinol)
2) Vitamin E (Tocopherol)
3) Vitamin K (Anti-Haemorrhagic)
4) Vitamin B_1 (Thiamine)
5) Vitamin B_2 (Riboflavin)

6) Vitamin B_6, Niacin
7) Vitamin C (Ascorbic acid)
8) Panthothenic acid and phenolics
9) Flavonoids
10) Fatty acids
11) Cinnamic acid
12) Hydroxybenzoic acid
13) Octadecanoic acid
14) Ethyl ester
15) Flavonoids
16) Moreover, it also contains apigenin, pinocembrin, acacetin, abscisic acid and ferullic acid [9–11].

PHARMACOLOGICAL PROPERTIES

Honey in wound healing

The medicinal significance of honey has been reported in various historical scientific literatures. The healing property of honey is mainly due to its antibacterial activity, maintaining a moist wound condition and its high viscosity that helps to provide a protective barrier over the wound to prevent the infection [12].

Cough Treatment

Honey reliably was proved superior in the cough frequency treatment. In the present study, we reviewed the research literature and came to know that honey has an excellent safety profile and beneficial effects on the cough prevention [13].

Honey and Diabetes

The use of honey in type I and type II diabetes was associated with significantly lower glycemic index than with glucose or sucrose in normal diabetes. Honey may cause a lower increase in blood glucose levels. It also caused a reduction of blood lipids, homocysteine levels and C–reactive protein (CRP) levels in normal and hyperlipidemic subjects [14–15].

Honey and Gastrointestinal Diseases

Honey has been suggested as potentially useful for various conditions of the gastrointestinal tract [16] dyspepsia, it is also used as a part of oral rehydration therapy. *In vitro* studies results that honey exerts bactericidal activity against *Helicobacter pylori* [17] although a clinical trial of manuka honey therapy to induce eradication of Helicobacter failed to indicate a beneficial treatment [18–20].

Honey and Cardiovascular Diseases

The antioxidants present in honey such as flavonoids, polyphenolics, Vitamin C, and monophenolics may be help in reducing the risk of cardiovascular failures. In the coronary heart disease, the protective effects of flavonoids such as antioxidant, antithrombotic, anti-ischemic, and vasorelaxant and flavonoids reduce the risk of coronary heart disorders through three mechanisms and these mechanisms are –

a) Improving coronary vasodilatation
b) Reducing the ability of platelets in the blood to clot
c) Inhibiting low-density lipoproteins from oxidizing.

However, *in vitro* and *in vivo* research and clinical trials should be initiated to further investigate these compounds in medical applications [19, 20].

METHODOLOGY

A search of articles, e-journals is conducted to collect all the data regarding efficacy of honey towards various problems. The investigation is also done in studying the Pharmacological actions of honey**.**

CONCLUSION

The conclusion of the above review article is that honey is a very beneficial food

substance which may helpful in treating a variety of body disorders, hence it is necessary to investigate its other properties as it may be proved as a boon for the human race.

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