

Anaphylaxis Reaction Caused by Honey-Based Enema - A Case Report

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ABSTRACT

Honey is used as the reputable and effective therapeutic agent by practitioners of conventional medicine. Several biological compounds from honeybees are added during honey formation. Currently, two types of honey are produced globally: traditional *Apis mellifera* honey and stingless bee honey.^[1] Honey has many medicinal properties and it is used in many *Panchakarma* procedures like enema. Persons immune system may be hypersensitive to any substance either it may be honey, oil, ghee etc. which are used in enema preparation. In *Charaka Samhita* it is explained that there is no disease more difficult to treat than honey-induced *Aama* disorder, the severity of treatment itself can kill the patient as quickly as poison. In this article we are presenting a case with anaphylactic reaction after honey-based enema administration, patient developed mild giddiness, mild dyspnea, nausea, sudden weakness etc. symptoms. it was managed with Sprinkling cold water, foot end elevation, oral rehydration solution, Tab. *Laghu Sutashekharā Rasa* and assurance to the patient. For the proper therapeutic action, the genuine quality and purity of honey is very necessary. Honey-based enema should be avoided in persons allergic to honey especially in *Pitta Prakriti* persons in *Ushna* (hot) seasons like *Sharat Ritu* and *Grishma Ritu* (summer season). The purpose of this article is to report a case of Anaphylaxis reaction induced by decoction enema and increase the awareness among *Ayurvedic* practitioner's and scholars regarding reporting of adverse reactions and events to National pharmacovigilance program.

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KEYWORDS: Honey; Anaphylaxis Reaction; Enema

1. INTRODUCTION

Honey is used as the reputable and effective therapeutic agent by practitioners of conventional medicine. Honey has many medicinal properties and it is used in many *Panchakarma* procedures. Decoction enema mixing includes the use of Honey, rock salt, oils or ghee, powder and decoction.^[2] Persons immune system may be hypersensitive to any substance either it may be honey, oil, ghee etc. which are used in enema preparation. In *Charaka Samhita* it is explained that there is no disease more difficult to treat than honey-induced *Aama* disorder, the severity of treatment itself can kill the patient as quickly as poison.^[3] Anaphylaxis is a potentially life-threatening systemic allergic reaction occurring within seconds to minutes of exposure to the anaphylactic trigger.^[4] It is

estimated that the world population has a lifetime prevalence of 1% to 3%, though the prevalence is increasing but fatality rate is extremely low.^[5]

2. Aims of the study:

- To report a case of Anaphylaxis reaction induced by decoction enema.
- To increase the awareness among *Ayurvedic* practitioner's and scholars regarding reporting of adverse reactions and events to National pharmacovigilance programme.

3. Case Report:

The case was a 45 years old female patient consulted *Panchakarma* OPD for pain in lower back region and pain in bilateral knee joints for 1 year. N/H/O

Hypertension, DM etc., no any specific disease and drug history. For the above said complaints *Erandamuladi Niruha Basti* was planned on OPD basis.

After the administration of first decoction enema she developed mild giddiness, mild dyspnea, nausea, sudden weakness and patient tumbles down after expulsion of *Basti* because of distress.

Treatment given

Oil massage

Local fomentation

Enema administered in empty stomach at 11.12AM, 18th March 2021

Table.No.1 – Ingredients of Decoction enema

Honey	80ml
Rock salt	6gms
Medicated oil	Gandhavahastadi Eranda Taila - 80ml
Paste	Erandamuladi Kalka-30gms
Decoction	Erandamuladi Kashaya -400ml

Management of anaphylaxis

Patient was given *Shita Jala Parisheka* (sprinkling cold water), foot end elevation, oral rehydration solution and *Laghu Sutashekhara Rasa 2* stat and assurance was given to the patient. After 15 minutes patient's condition was normal. When clinical history was taken to establish the cause of anaphylaxis, patient revealed the H/O allergy for Honey and she had same complaints previously after honey intake.

Table.No.-2 Vitals of patient

Sl. N	Vitals	Before treatment	During Anaphylaxis	After Treatment
1.	B. P. in mmHg	130/80	110/70	110/80
2.	Pulse	76bpm	86bpm	76bpm
3.	Respiratory	18cpm	22cpm	16cpm

4. Discussion:

Rectal drug absorption plays an important role in the therapeutic efficacy of *Basti*, as the drugs absorbed rapidly and effectively. There are many myths and misconceptions regarding *Ayurveda* and a popular one is; *Ayurvedic* medicines are devoid of adverse reactions. If the medications are utilized improperly with no appropriate methodology they might show numerous antagonistic responses, yet the quantity of unfavorable or Adverse responses to *Ayurvedic* drugs announced or recorded in the National Pharmacovigilance Program in India is insignificant.

Anaphylaxis is typically an Ig E-mediated (type 1) hypersensitivity reaction that involves the release of numerous chemical mediators from the degranulation of basophils and mast cells after re-exposure to a

specific antigen. Ig E crosslinking and resultant aggregation of high-affinity receptors induce the rapid release of stored chemical mediators. These chemical mediators include histamine, tryptase, carboxypeptidase A, and proteoglycans. These mediators will increase vascular permeability, vasodilation and reduced tissue perfusion. Some mediators cause bronchoconstriction, cardiac and pulmonary vascular constriction.^[6]

Honey is sweet, astringent, dry, kindles digestive fire, penetrates minute channels and subsides *Dosha* in nature.^[7] Since the honey is the combination of juices of different flowers and many substances of mutual antagonism and as it is collected by bees, it is not to be subjected to heat. Honey given in person suffering from hotness, or when given along with hot substances or administered in hot season, it acts as poison or kills. In *Pitta Prakruti* persons also use of honey in summer season may induce anaphylactic reaction due to its hot nature.

Honey might contain various of contaminants including pesticides, antibiotics, heavy metals, and other toxic materials. These chemical materials have been proven to cause a seriously unexpected consequence. the presence of allergens, which is derived from bee glands has been accused to stimulate allergy despite of its rare incidence. However, many case reports have been published recently describing that consuming honey and foods- contain honey has caused anaphylaxis.^[8]

For the preparation of *Basti* (decoction enema) locally processed honey was used and the physicochemical analysis and elemental analysis data of the used honey was not available as it was not tested for adulteration tests.

Adulteration of honey with foreign substances and use of excessive heat for pasteurization and liquefaction might have adverse effects on honey quality.^[9]

Previously a case report was published with the title "Anaphylaxis Induced by Rectal Drug Formulations" which reports 2 cases of anaphylaxis after administration of a honey-based enema, and discussed possible implicated mechanisms, which concludes Honey have played a role in the severity of the episodes considering its allergen contents and formulation-related factors such as viscosity and adherence.^[10]

The significance and seriousness of hypersensitivity in the everyday act of *Ayurvedic* treatments, it is important to report the unfavorable medication responses of herbal, herbo-mineral or any *Ayurvedic* treatments.

Given these findings, it is imperative that all healthcare workers be educated on anaphylaxis and its treatment and they should be prepared to deal with anaphylaxis, and possess the knowledge and skills to coordinate with other team members to arrange the appropriate follow-up care, leading to better patient outcomes. Further, the limited data about honey should be proposed to provide the detail knowledge about exact contents of the honey, honey components which stimulates the hypersensitivity reactions and management of honey induced reactions.

4.1. Conclusion:

Honey as a natural product, it is a target for adulteration because of its wide use and high demand in the commercial and health aspects. For the proper therapeutic action, the genuine quality and purity of honey is very necessary. Even though, the cases of honey induced anaphylaxis reactions are very rare but they are fatal. Utmost care should be taken while taking history and avoid honey-based enema in persons allergic to honey especially in *Pitta Prakriti* persons in *Ushna* (hot) seasons like *Sharat Ritu* and *Grishma Ritu* (summer season).

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