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Folklore practices of Peruka (Psidium guajava Linn.) in different diseases

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ABSTRACT

Peruka / Amrutaphala (Psidium guajava Linn) is indigenous to Tropical America, it was brought to India by Portuguese. Peruka is treated with less chemicals in comparison to other fruits which makes this a healthier choice. Peruka is Kashaya Rasa Pradhana, Madhura, Amla, and Tridoshaghna, Shukrala, and Sheetaveerya. Perukabeeja is Vistambhi. It is rich in Vitamin C. Peruka, white variety is Grahi and red variety is indicated in Vishuchika. In folklore practices, Peruka unripened fruit is applied externally in Pittaja Shirashoola. This review is compiled to explore the various folklore practices of Peruka with respect to its different parts like leaves and fruits.

Key words: Ayurveda, Peruka, Folklore, Diseases.

INTRODUCTION

Folklore medicine is one of the traditional knowledge that developed over generation and is the integral part of our culture. Nearly 80% of the world population rely on traditional medicines for primary health care. [1] Peruka (Psidium quajava Linn.) is native to Tropical America.^[2] It is popularly known as guava and has been used traditionally as a medicinal plant throughout the world for a number of ailments. There are two most common varieties of guava, the red (P. guajava var. pomifera) and the white (P. guajava var. pyrifera).[3] Red variety is known as apple guava and white variety as cherry guava or strawberry guava or cattley guava.[4] Among wide range of plants used in

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folklore practice, few are well known, easily available as used in day to day life, on the other hand, there are many plants which are controversial, not much known to public and difficult to get. Peruka is commonly found in garden and easily available which can be used as nutritional and medicinal purpose. A large group of population suffer from ailments which are often neglected like Amlapitta, Pittaja Shirashoola, Kastartva, these can be managed by proper usage of Peruka. Peruka also helps in controlling Prameha for some extent. As Peruka references are not widely found in Ayurveda literature, some of the references are present in Nighantu Adarsha, Nighantu Ratnakara, Shivadutta and Nighantu Sangraha. From these references it is considered as Kashaya, Madhura, Amla Rasa, Sheetaveerya Tridoshaghna, Shukrala. [5],[6]

पेरुकं दृढबीजं च मांसलं चापृथक् त्वचम् । मृद् पीतं वर्त्लं च त्वर मध्राम्लकम् ॥ - शिवदत्त पेरुकं तुवरं प्रोक्तं स्वाव्दम्लं कफकारकम् । शुक्रलं वातपित्तघ्नं शीतलं च रसं गतम् ॥ - नि. सं. ततोऽमृतफलं स्वाद् त्वरं नातिशीतलम् । तीक्ष्णं गुरु कफकरं वातलं मदनाशकम्॥

वृष्यं रुचिश्क्रकरं त्रिदोषघ्नं च कीर्तितम्॥ - नि. र.

Description of *Psidium guajava* Linn.^{[7],[8]}

Botanical name	Psidium guajava Linn.
Family	Myrtaceae.
Varga	Jambvadivarga
Sanskrit	Peruka, Amrutaphala, Amarudha, Mamsala, Dridhabija,Tuvara.
English	Guava tree.
Hindi	Amrudh, Peyar.
Kannada	Sibbehannu.
Telugu	Ettajama, Gova, Goyya, Jama, Tellajama.
Konkani	Per
Bengal	Goaachhi, Peyara, Piyara.
Tamil	Koyya, Segappugoyya, Sirugoyya, Vellaikoyya.
Malayalam	Koyya, Malakkapera.
Marathi	Jamba, Tupkel.

Botanical classification^[9]

Kingdom	Plantae - Plants
Subkingdom	Tracheobionata vascular plants
Superdivision	Spermatophyte Seed plants
Division	Magnoliophyte Flower plants
Class	Magnoliopsida Dicotyledonous

Subclass	Rosidae
Order	Myrtales
Family	Mytraceae
Subfamily	Myrtoideae
Tribe	Myrteae
Genus	Psidium
Species	guajava

Morophology^[10]

Habitat	A large evergreen or sub deciduous shrub, sometimes a small tree up to 90cm. girth and 7.5m high.
Stem	Irregularly fluted when old. Bark quite smooth, pale pinkish brown or buff with grey patches, exfoliating in very thin woody plates.
Leaves	10- 15cm long, oblong, or elliptic – oblong, entire, glabrous above, pubescent, beneath, pellucid – punctate, lateral nerves 10 – 20 pairs, prominent beneath, strongly curved near the edge and joined by intramarginal veins. Petioles 2.5 – 7.5mm long.
Flowers	White and peduncles long, axillary, 1-3 flowered.
Fruit	Globose or pyriform berry.
Ovary	Calyx tube adnate to the ovary and produced above it, the upper free portion entire, closed in bud at length bursting irregularly into lobes.





Nutritional value per 100gm of fruits ^[11]		
Energy	285kJ (68 kcal)	
Carbohydrates	14.2g	
Sugars	8.92g	
Dietary fibres	5.4g	
Fat	0.95g	
Protein	2.55g	

Vitamin A	31ug
Beta- Carotene	374ug
Thiamine (B1)	0.067ug
Riboflavin (B2)	0.04mg
Niacin (B3)	1.084mg
Pantothenic acid (B5)	0.451mg
Pyridoxine (B6)	0.11mg
Ascorbic acid (Vitamin C)	228.3mg
Vitamin K	2.2ug
Iron	0.26ug
Magnesium	0.15mg
Phosphorus	40mg
Potassium	417mg
Sodium	2mg
Zinc	0.23mg
Lycopene	5204ug
Folic acid (B9)	49ug

Chemical Constituents^[12]

- Leaves phenolic compounds, iso-flavonoids, gallic acid, catechin, epicathechin, rutin, naringenin, kaempferol, Quercetin.
- Pulp Ascorbic acid, carotenoids (lycopene, βcarotene, β-cryptoxanthin.
- Seed Glycosides Carotenoids, phenolic compounds.

- Skin Ascorbic acid and Phenolic compounds.
- Bark Phenolic compounds.

MATERIALS AND METHODS

1. Kastartava

Kashaya preparation: 5 - 6 young leaves are taken and boiled in 4 cups of water, till thewhole extract is obtained from leaves.

Dose and duration: Fresh *Kashaya* is given orally on empty stomach, 2- 3 tbsp up to 3rd day of menstruation.

2. Amlapitta

Kashaya preparation: 10- 15 leaves are boiled in 3-4 cups of water till it is reduced to half.

Dosage and duration: Warm decoction, 2-3tbsp is given orally on empty stomach as single dose for 1week.

3. Pittaja Shirashoola

Lepa preparation: Smooth paste of unripened fruits of *Peruka* is applied as a *Lepa* over forehead.

Duration: Once a day for 5 days.

4. Prameha

Churna preparation: Ripened Guava fruit is dried and powdered.

Dosage and Duration: 1tsp powder is given along with buttermilk before food, twice a day for 15 days.

Kashaya preparation: 10-15 leaves and 4 cups of water are boiled till it is reduced to half.

Dosage and duration: 2-3 tbsp of warm *Kashaya* is given on empty stomach or after having white rice for 3 months.

OBSERVATION AND RESULTS

Peruka fruit:

- 1. Ripened fruit has hypoglycemic effect in *Prameha*.
- 2. Unripened fruit *Lepa* has analgesic effect in *Pittaja Shirashoola*.

Peruka leaves:

1. *Kashaya* of leaves shows an effective result in *kastartava, amlapitta, prameha*.

DISCUSSION

Kastartava

Kastartava is considered under Vatajaartava Dusti, [13] which is Shareerika Dourbalyajanya (because of its Nidana) along with the Alpaartava. Therefore, here Vatadoshahara and Raktashodhaka treatment is needed. Peruka is Vatadoshahara and Kashaya Rasa is Raktashodhaka. Vitamin B3 is responsible for production of serotonin which reduce the menstrual cramps [14] and Vitamin C is mild anti- inflammatory which decreases cramps. [15] Flavanoids (Quercetin), inhibits prostaglandin induced pain. [16]

Amlapitta

Amlapitta is Vidagdhapitta Vruddhijanya Vyadhi. [17] Kashaya and Madhura Rasa are helpful in alleviating Pitta, Sheeta Veerya also alleviates Pitta, Alkaline nature of guava leaves gives good response in Amlapitta. Saponins and flavonoids act mainly via an anti-secretory mechanism, they inhibit acid secretion, total acid output and lower pH of gastric juice. [18] Flavanoids and saponins in the guava leaves have been found to be an effective remedy in counteracting Amlapitta.

Pittaja Shirashoola

According to *Brihatrayee* in *Pittaja Shirashoola, Madhura Rasa, Sheeta Veerya Dravya Lepa* is mentioned^[19-21] and *Peruka* has *Madhura Rasa, Sheeta Veerya Pittaghna* property and *Lepa* of the unripened *Phala Twak* of *Peruka* alleviates the *Pittaja Shirashoola*. The main constituent of the pericarp is ascorbic acid.^[22] Ascorbic acid is proved to have analgesic activity.^[23] Many pharmacological studies have proved the ability of plant to exhibit antinociceptive activities.^[24]

Prameha

Prameha is Santarpanajanya and Kledapradhana Vyadhi. Peruka is Kashaya Rasa which does Kledashoshana and Tridoshahara. High fibres in ripened guava fruit slows down the absorption of

glucose, thereby it prevents raise in blood glucose level right after the meal.^[26] Tannins, flavanoids, pentacyclic triterpenoids, quercetin present in leaves speculated for hypoglycemia.^[27]

CONCLUSION

The ripe fruit, *Kashaya* of leaves and unripe fruit *Lepa* have shown effectiveness in diseases like *Amlapitta*, *Pittaja Shirashoola*, *Kastartava*, *Prameha*, which are supported by several studies. From all these, there is a scope for research in folklore practice which will be a great contribution in addressing common ailments. By using the medicinal plants available in and around can help in conservation and can overcome the exploitation of medicinal plants.

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