EVALUATION OF POWDER MICROSCOPY AND PHYSIOCHEMICAL STUDIES ON THE FRUIT OF PIPPALI (Piper longum Linn.)

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Abstract: Medicinal plants have shown large potential for the development of the new drugs molecule against various diseases. The present work deals with the Physiochemical and Powder microscopy and studies on the fruit of Pippali (Piper longum Linn.), Piperaceae family. Pippali is considered to be one of the best drugs in Ayurveda it means which nourishes all dhatus of body and maintains health. It is also known as long pepper. Pippali should not be used in excess or for a very long period of time. If used in excess without precaution pippali aggravated tridosh. Pippali has been used as a therapeutic agent in the treatment of various diseases like Anaha, Agnimanda, Udarshoola, Kasa, Shwasa etc and have Rasayana, Deepan, Pachana, Vatahara and Kaphahgana karma etc.

Keywords: Pippali, Piper longum, Powder microscopy, Ayurveda.

Introduction: Pippali is one such drug which is commonly used as spice and also having great therapeutic importance but when used improperly it aggravates kapha dosha by its guru and kleda property, aggravates pitta due to its ushna guna, aggravates vata dosha due to its yogavahi property. In samhitap period, pippali is mentioned in various contexts. Acharya Charaka and Sushruta have extensively quoted among the dashemani mahakashaya and gana respectively like in Deepaniya, Hikkanigrahana, Shirovirechanopaga, Shoolapramanama, Triptighana mahakashaya and Pippaliyadi gana. Charaka mentioned that pippali should not be used in excessive quantities or regularly. Pippali also having rasrayana property. According to Ayurvedic classics two types of Pippali are mentioned-1. Gajapippali (Piper chaba) 2. Pippali (Piper longum). Raja nighantu mention four types of pippali i.e. 1.Pippali, 2.Gaja

Botanical Description: Plant of Piper longum is a slender climber distributed in warmer region of the country. Inflorescence is spike. Fruits small, ovoid, sunken structures embedded in a fleshy spike, which is 2.5 to 4.0 cm long, ovoid, oblong, light green when immature, and blackish-green and shining on ripening, broken surface shows a central axis and 6-12 fruitlets arranged around an axis. Leaves are simple, alternate, stipulate and petiolate or nearly sessile according to their position on the plant. Taste pungent producing numbness on the tongue; odour, aromatic.

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Ayurvedic Properties\[9,10\]

- Rasa: Katu, Tikta, Madhura.
- Guna: Laghu, Snigdha.
- Virya: Anusna.
- Vipaka: Madhura.
- Dosakarma: Kaphavatashamaka.

Materials and Methods

Pippali (Piper longum Linn.), had been identified by Prof. V.K. Joshi, Department of Dravyaguna, B.H.U. The mature fruit of pippali had collected from the Ayurvedic dravyaguna garden, B.H.U. Fruit had pulverized in the mechanical grinder to a moderate fine powder to carry out powder microscopic studies and had stored in a well closed airtight vessel for further analysis and crude powder of pippali had taken for hydroalcolalic extraction.

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