



PHARMACO-THERAPEUTIC REVIEW OF PIPPALYADI AGADA FROM YOGARATNAKAR

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ABSTRACT Agadtantra is one of the eight branches of Ayurveda which deals with the study of Visha with respect to its types, signs & symptoms, treatment as well as various Agada Kalpas (Medicinal preparations for Visha).

Pippalyadi Agada is one of them explained by Yogaratnakara. It is the combination of herbs like, Pippali (Piper longum), Dhanyaka (Coriandrum sativum), Jatamansi (Nardostachys Jatamansi), Lodhra (Symplocos racemosa), Sukshmaela (Elleteria cardimomum), Bruhadela (Amomum subulatum), Maricha (Piper nigrum), Balakam (Valeriana Wallichii) & minerals like, Suwarchika (Salt petre /Potassium nitrate) & Suvarna Gairika (Red oxide of iron) mixed with Honey. It is used in Dushivisha Chikitsa which is a kind of chronic cumulative or residual toxicity.

Apart from its anti-toxic nature, ingredients of Pippalyadi Agada have anti-inflammatory, anti-oxidant, antifungal, antimicrobial, hepatoprotective and immune-stimulatory properties.

So, in this review, pharmacological & therapeutic actions as well as anti-toxic properties of Pippalyadi Agada were discussed.

KEYWORDS : Pippalyadi Agada, Dushi Visha. Antioxidant, Antitoxic, Antimicrobial

INTRODUCTION

In Ayurveda, poisons are classified as *Sthavar Visha* (Inanimate poison), *Jangam Visha* (Animate poison) & *Kritrima Visha* (Artificial poison).^{1,2,3} *Dushi Visha* is a part of *Sthavar, Jangam* or *Krutrima Visha* which cannot be eliminated from the body completely but it is destroyed or denatured due to previous use of anti-poisonous remedies, dried by fire, air or exposure to sunlight & lose its original properties is known as *Dushi Visha*. Due to its low potency, it doesn't kill the human instantly but as it is encapsulated by *Kapha Dosha*, it remains accumulated in the body for several years.⁴ Thus, it can lead to various diseases in long term.

Various *Agads* i.e. anti-toxic remedies are mentioned in ancient texts and *Pippalyadi Agad* is one of them. It is mentioned by *Yogratnakara* for treatment of *Dushi Visha*.⁵ Apart from this, the ingredients of *Pippalyadi Agad* possess many other properties too. They have anti-inflammatory, antifungal, antimicrobial insecticidal, anti-oxidant, hepatoprotective, immune-stimulatory and antitoxic properties.⁶

So, the purpose of this review is to compile available data & generate systematic evidence about pharmaco-therapeutic importance of *Pippalyadi Agada*.

Methods:

This review study was carried out by literature search and critical review of the obtained facts. The study regarding *Pippalyadi Agada* was made critically from various Ayurvedic texts and various online medical research databases and an effort was made to understand and explore the systematic evidence about efficacy & importance of herbs & minerals present in *Pippalyadi Agada*.

Review Of Literature:

A. Review of *Pippalyadi Agad* from Ayurveda classics

It is the combination of herbs like *Pippali, Dhanyaka, Jatamansi, Lodhra, Sukshmaela, Bruhadela, Maricha, Balakam* & minerals like *Suwarchika* & *Suvarna gairika* mixed with Honey.⁵

Table 1: Latin Name/ Family, Rasa, Guna, Veerya, Vipak, And Doshagnata Of Ingredients Of Pippalyadi Agad^{7,8}

S. No	Drug Name	Latin Name/ Family	Rasa	Guna	Veerya	Vipak
1	<i>Pippali</i>	Piper Longum / Piperaceae	<i>Katu</i>	<i>Laghu, Snigdha Tikshna</i>	<i>Anushnasheeta</i>	<i>Madhura</i>
2	<i>Dhanyaka</i>	Coriandrum Sativum/ Umbelliferae/Apiaceae	<i>Kashaya, Tikta, Katu, Madhura</i>	<i>Laghu, Snigdha</i>	<i>Ushna</i>	<i>Madhura</i>
3	<i>Jatamansi</i>	NardostachysJatamansi/ Valerianaceae	<i>Tikta, kashaya, Madhura</i>	<i>Laghu, Snigdha</i>	<i>Sheeta</i>	<i>Katu</i>
4	<i>Lodhra</i>	SymplocosRacemosa/ Symplocaceae	<i>Kashaya</i>	<i>Laghu, Ruksha</i>	<i>Sheeta</i>	<i>Katu</i>
5	<i>Sukshmaela</i>	ElleteriaCardimomum/ Zingiberaceae	<i>Katu, Madura</i>	<i>Laghu, Ruksha</i>	<i>Sheeta</i>	<i>Madhura</i>
6	<i>Bruhadela</i>	Amomum Subulatum/ Zingiberaceae	<i>Tikta, Katu</i>	<i>Laghu, Ruksha</i>	<i>Ushna</i>	<i>Katu</i>
7	<i>Maricha</i>	Piper Nigrum/ Piperaceae	<i>Katu</i>	<i>Laghu Tikshana</i>	<i>Ushna</i>	<i>Katu</i>
8	<i>Balakam / Tagara</i>	ValerianaWallichii/ Valerianaceae	<i>Tikta, Katu, Kashaya</i>	<i>Laghu, Snigdha</i>	<i>Ushna</i>	<i>Katu</i>
9	<i>Suwarchika</i>	(Salt petre / Pottassium nitrate (KNO ₃))	<i>Katu</i>	<i>Tiksna</i>	-	-
10	<i>Suvarna gairika</i> ^{9,10}	Red oxide of iron 2Fe ₂ O ₃ , 3H ₂ O (Fe ₂ O ₃)	<i>Madhura, Kashaya</i>	<i>Snigdha</i>	<i>Sheeta</i>	<i>Madhura</i>
11	<i>Madhu</i> ^{11,12,13}	Piper Longum	<i>Madhura, Anurasa- Kashaya</i>	<i>Ruksha, Lekhana, Shita, Tikshana</i>	<i>Sheeta</i>	<i>Katu</i>

Table 2: Doshagnata, Karma and Rogagnata of ingredients of Pippalyadi Agad^{6,14}

S.No	Drug Name	Doshagnata [Action on Doshas]	Karma [Therapeutic action]	Rogagnata [Action on diseases]
1	<i>Pippali</i>	<i>Kapha-vatashamaka</i>	<i>Agnidipaka, Vrushya, Rasayna, Rechaka, Swasaghna, Kasaghna, Jwaraghna, Pittaprapakopa, Pachaka.</i>	<i>Kustha, Krimi, Raktavikar, Shotha</i>
2	<i>Dhanyaka</i>	<i>Tridoshashamaka</i>	<i>Mutral, Deepana, Pachana, Grahi, Jwaraghnam, Rechaka, Vamaka, Swasaghna, Kasaghna,</i>	<i>Krimi, Shotha, Agnimandya, Mutrakruhha</i>

3	Jatamansi	Tridoshashamaka	Kasahara, Vishaghna, Dahashamaka, Kushtaghna, Deepana, Pachana, Mutrala, Mruduvirechaka, Twakadoshahara, Hrudya, Balya.	Twakvikar; Shotha, Vishavikar; Mutrakruchha, Bastishotha
4	Lodhra	Kapha-pittshamaka	Grahi, Raktapittaghna, Jwarghna, Atisarahara, Shothaghna, Raktastambaka, Balya, Kushthaghna.	Raktavikar; Twakvikar; Shotha, Kustha, Vishavikar
5	Sukhsmaela	Tridoshashamak	Kasaghna, Svasaghna, Kaphanisaraka, Arshoghna, Mutral, Durgandhanasaka, Trushnanigrahana, Deepana, Pachana,	Agnimandya, Mutrakruchha, Dah, Trushna, Arsha
6	Bruhadela	Kapha-vatshamaka	Twagadoshahara, Raktaprasadana, Hrudyashamaka, Balya, Mutrajanan, Kushtaghna, Jwaraghna, Vishaghna	Kandu, Raktavikara, Twakaroga, Vrana, Vishavikar
7	Maricha	Kapha-vatshamaka	Agnideepana, Vatashamaka, Pittakaraka, Shvasaghna, Shulaghna, Krimighna, Chedana, Ruchya, Mutrajanana,	Switra, Kilasa, Pama, Krimi, Twakvikar; Agnimandya, Mutrakruchha
8	Balakam / Tagara	Kapha-vatashamaka	Akshirognashaka, Apasmarnashaka	Vishavikar, Kustha
9	Suwarchika	Kaphashamaka	Shothaghna, Jwaraghna, Deepan, Pachan	Mutrakruchha, Ashmari, Jwara, Shotha, Agnimandya
10	Suvarna gairika ^{9,10}	Pittashamaka	Dahahara, Pittahara, Raktavikarhara, Kaphahara, Hikkahara, Vishaghna,.	Vishavikar, Kandu, Raktapitta, Hikka
11	Madhu ^{11,12,13}	Kaphashamaka	Vishaghna, Krumighna, Hrudya, Vajikarana, Yogavahi Vranropana, Medovrudhinashaka, Trushnanashaka	Kushtanashaka, Kasa, Shwasa Pittaatisara, Grahani, , Jwara, Prameha,

B. Review of ingredients of Pippalyadi Agad from published research studies-

Table 3: Chemical Constituents And Pharmacological Action Of Ingredients Of Pippalyadi Agad^{15,6}

S.No.	Drug Name	Chemical constituents	Pharmacological action
1	Pippali	Piperine, pipartine, sesamin, pipasterol, piperlongumine essential oils.	Antibacterial, anti-inflammatory, hepatoprotective, antispasmodic, antitubercular, immunostimulatory, analgesic, antimicrobial, anticancer, antioxidant.
2	Dhanyaka	Coriandrol, petroselinic acid, γ -terpinene, α -pinene, p-cymene, camphor.	Antimicrobial, antioxidant, hepatoprotective, antihyperglycemic, antihyperlipidemic
3	Jatamansi	Jatamansin, jatamansinol, jatamansone, nardol, nardostechone, norsechelanone	Anticonvulsant, hepatoprotective, anthelmintic, diuretic, antimicrobial, analgesic
4	Lodhra	Monomethyl pelargonidin glucosides (I & II), Loturine, colloturine	Antimicrobial, anti-inflammatory.
5	Sukhsmaela	Cineol, Terpeneol, Terpinene, Limonene, flavonoids, terpenoids and carotenoids	Antioxidant, antimicrobial.
6	Bruhadela	Monoterpenoids 1,8-cineole, alpha-pinene, beta-pinene, and alpha-terpineol.	Analgesic, antimicrobial, diuretic, antioxidant, hypolipidemic.
7	Maricha	Piperine, piperic acid, pellitorine, piperolein B, piperamide, piperettine	Antioxidant, insecticidal, anti-inflammatory, hepatoprotective, antimicrobial
8	Balakam / Tagara	Valricianic acid, Valeric acid, Terpene alcohol. Arachidic acid. ¹⁶	Anti-inflammatory, antimicrobial activity, anthelmintic, antioxidant
9	Suwarchika	Pottassium nitrate (KNO ₃), Nitrites. ⁸	Potassium nitrate is a common active ingredient in toothpaste, exerting an anti-sensitivity action. In addition, it is used as a diuretic.
10	Suvarna gairika	Red oxide of iron 2Fe ₂ O ₃ , 3H ₂ O (Fe ₂ O ₃)	Effective in skin diseases, piles, bleeding disorders, urticaria, vomiting, etc.
11	Madhu	Carbohydrates, fructose, glucose, Minerals, iron, zinc and antioxidants	Antibacterial, antidiarrheal. Effective in obesity, skin disease, cough, asthma etc.

DISCUSSION:

All the information obtained from Ayurveda texts and various published research studies has been reviewed and discussed.

Most of the individual drugs in Pippalyadi Agad have *Katu*, *Tikta*, *Kashaya Rasa*, *Katu Vipaka* and *Ushana Veerya*. *Pippali*, *Dhanyaka* with its *Madhur Vipak* and *Snigdha Guna*, *Jatamansi* with *Snigdha Guna*, *Sukhsmaela* with *Madhur Vipak*, *Bruhadela*, *Maricha* and *Balakam* with its *Ushna Guna* pacifies *Vata*. *Jatamansi*, *Lodhra*, *Sukhsmaela* due to *Tikta Rasa* and *Sheeta Veerya*, *Suvarna gairika* due to *Sheet Veerya* pacifies *Pitta Dosh*. Most of the contents of Pippalyadi Agad pacify *Kapha Dosh* due to their *Tikta*, *Katu* and *Kashay Ras*, *Katu Vipak*, *Laghu*, *Ruksha*, *Ushna* and *Tikshna Gunas*. *Madhu* and mineral drug like *Suwarnagairik* increase the efficacy & potency of this drug. Diuretic nature of Potassium salt also helps in flushing out toxins from the body. Thus, *Katu*, *Tikta*, *Ushana*, *Tikshna* properties, diaphoretic and diuretic action of Pippalyadi Agada helps in the elimination of poison from the body.

Due to its *Agnideepan*, *Aampachan*, *Jwaraghna*, *Krimihara*, *Strotoshodhan*, *Vranashodhan*, *Raktashodhak*, *Bastishodhak*, *Mutrajanan*, *Shothahar*, *Kothaprashaman* and *Rasayan Vishaghna*,

Mutral properties, it acts effectively in various diseases caused by *Visha*.

It has *Tridoshaghna* nature, especially *Kapha-Vat shamaka* properties which can break the encapsulation of *kapha* and can treat the accumulated *Visha* and thus alleviates *Dushi Visha*.

As far as their pharmacological properties are concerned, many preclinical studies have shown that these drugs have many properties like Anti-inflammatory, Antioxidant, Immunostimulatory, Anti-toxic, Antipyretic, Antidiarrheal, Antimicrobial, Anthelmintic, Cytotoxic, Hepatoprotective, Hypolipidemic, Hypoglycaemic, Antitubercular etc. Thus, it is useful in prevention and treatment of various diseases.

CONCLUSION:

Pippalyadi Agad possess antioxidant activity due to which it is effective in protection and treatment of various diseases. As per Ayurveda, *Katu*, *Tikta*, *Ushana*, *Tikshna* properties, Due to *Tridoshaghna* nature especially *Kapha-Vatshamak*, it can treat the accumulated *Visha* and thus alleviates *Dushi Visha*. Also, as per contemporary science, anti-toxic, anti-microbial and anti-inflammatory activity of Pippalyadi Agad help in reducing toxins from

the body. By taking all the literature into consideration, it can be concluded that due to *Tridoshghna* nature, anti-toxic, anti-oxidant, antimicrobial and anti-inflammatory activity, *Pippalyadi Agad* is very effective in detoxification and treatment of a disease.

Further advanced studies are needed to establish its efficacy for betterment of Ayurveda.

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