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Study of Controversial Aspect of *Cleome viscosa*, Linn. and *Gynandropsis gynandra*, Linn. – A literary Review

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Abstract:

Controversy in identification of medicinal plants has been a problem since ages. When we refer the classical text like *Caraka Samhita*, it becomes important to know the exact medicinal plant mentioned in the formulation or treatment. The controversy regarding a plant is found to be of two types mainly.

- i. Single classical plant having multiple botanical identities eg. *Parpata*, *Rasna*, *Amlavetasa*, *Bharangi*, *Pasanabheda* etc.
- ii. Botanically identified single plant with multiple classical identities eg. *Bacopa monnieri*, *Clitoria ternatea* etc.

The plants of this study fall under second category. The plants *C.viscosa*, Linn. and *G.gynandra*, Linn. are having multiple classical identities like *Ajagandha*, *Tilaparni*, *Suvarcala*, *Brahmasuvarcala* and *Adityabhakta*. An effort is made to resolve the controversy by comparing the information of these plants from classical

Ayurvedic texts and Modern texts in this article.

Method:

1. Compilation of all the data from Literature
2. Comparison of classical data with *C.viscosa* and *G.gynandra* characteristics
3. Conclusion is made on the basis of observations

Observation and Conclusion:

Comparisons of all the above discussed classical plants with *Cleome viscosa*, Linn. and *Gynandropsis gynandra*, Linn. shows *Ajagandha* being similar to *Gynandropsis* and *Tilaparni* being similar to *Cleome*.

Keywords: *Cleome viscosa*, Linn, *Gynandropsis gynandra*, Linn, *Ajagandha*, *Tilaparni*, *Suvarcala*, *Brahmasuvarcala*, *Adityabhakta*, Controversial aspect.

Introduction:

If everything was so simple it would not have created any complication and hence

a place for curiosity and research. As the world is looking towards the identification and standardization of all the available sources of drugs, it becomes inevitable to look for the right source of classical drugs i.e. Drugs mentioned in the Ayurvedic literature specifically in *Samhitas*. Controversy in the identification of drug is one of the major barrier in the field of medicine as well as in the process of standardization. There are many reasons for the creation of controversy in a field. In the field of *Dravyaguna* controversy can arise due to

1. Non-availability of *Samhitakalina* drugs in later period
2. Misunderstanding and misinterpretation of the drugs by commentators and *Nighantukaras*.
3. Different plants used in different geographic areas by the same name.
4. Same plant used by different names at different places.

5. Different plants used by similar or single name at different places or at one place only.

1. Lack of knowledge of plants, etc.
These are few factors among them. Time is an unavoidable factor which plays an important role. Why are we dealing with the controversy when we have two botanically identified plants? The reason is, these plants are taken as the source plant for few classical plants listed next. The controversy regarding a plant is found to be of two types mainly.
 - i. Single classical plant having multiple botanical identities eg. *Parpata*, *Rasna*, *Amlavetasa*, *Bharangi*, *Pasanabheda* etc.
 - ii. Botanically identified single plant with multiple classical identities eg. *Bacopa monnieri*, *Clitoria ternatea* etc...

Plants of this study fall under the second category as these are taken as source of many classical plants according to the opinions of some scholars of Ayurveda as follows.

TABLE –1
OPINIONS

Name of Scholar	<i>Gynandropsis gynandra</i> , Linn.	<i>Cleome viscosa</i> , Linn.
A/O Vanausadhi	<i>Ajagandha</i> , <i>Suvarcala</i> ,	<i>Ajagandha</i> , <i>Tilaparni</i> ,
Nidarsika ^[1]	<i>Adityabhata</i>	<i>Suvarcala</i> , <i>Adityabhakta</i>
Acarya Yadavaji	<i>Ajagandha</i>	<i>Ajagandha</i> , <i>Hulhul</i>
Trikamji ^[2]		
Vd. B. G. Shah ^[3]	<i>Ajagandha</i> , <i>Tilaparni</i>	<i>Tilaparni</i> <i>Ajagandha</i>
Vd. K. C. Chuneekar ^[4]	<i>Suvarcala</i>	<i>Suvarcala</i>
A/o. <i>Saligrama</i>	<i>Ajagandha</i>	-
<i>Nighantu</i> ^[5]		
Vd. V. G. Desai ^[6]	<i>Tilaparni</i>	<i>Adityabhakta</i>
Vd. Bodas ^[7]	<i>Ajagandha</i>	<i>Ajagandha</i>
Vd. Vishwanath Dwivedi ^[8]	-	<i>Suvarcala</i>
Acarya P. V. Sharma ^[9]	<i>Tilaparni</i> , <i>Adityabhakta</i>	-

From the table above, it becomes clear that both the plants of study are taken as *Ajagandha*, *Tilaparni*, *Suvarcala*, *Brahmasuvarcala* and *Adityabhakta* by various scholars. Let's go through all the plants in brief from the *Samhitas*.

1. *Ajagandha*

In *Caraka Samhita*:

It is described under the contents of *Hingusauvarcaladya Grta* and *Hingvadi Curna Gutika* in *Gulma Cikitsa*, *Narayana Curna* in *Udara Roga Cikitsa*, *Dhoomapana Yoga* in *Ksataja Kasa*, *Kusthadi Taila* in *Urusthambha*. In *Kalpa Sthana* it is mentioned under *Virecanakalpa* in *Syamatrivrtakalpadhyaya*, *Saptala*. ^[11]

In *Susruta Samhita*:

Ajagandha is mentioned in *Misrakadhyaya* as *Slesma Sophahara Pralepa dravya* and content of *Samsodhana Varti* in *Sutra Sthana*. In *Cikitsa Sthana* as one of the ingredient of *Hingvadi gutika* of *Mahavatayadhi*. and in *Uttara Sthana* it is used as a drug for

TABLE -2

SYNONYMS OF AJAGANDHA [#]

Synonym	Ca.	Su.	Va.	Dh. Ni.	So. Ni.	M. Ni.	Kai. Ni.	R. Ni.	Sa. Ni.
<i>Ajagandha</i>	+	+	+	+	+	+	+	+	+
<i>Kharapuspa</i>	+	+	-	+	+	+	+	-	+
<i>Kharapuspa</i>	+	-	-	-	-	-	-	-	-
<i>Bastagandha</i>	-	-	+	+	+	-	+	+	+
<i>Pasugandha</i>	-	-	+	-	-	-	+	-	-
<i>Avigandhika</i>	-	-	-	+	+	-	-	+	-
<i>Karavi</i>	-	-	-	+	+	+	-	-	-

Mukhamandika graha and content of *Hingvadi Grta* in *Gulma Pratishedha*. ^[12]

In *Astanga Hrdaya*:

Ajagandha is used in *Visamajvara* as an ingredient of *Narayana Curna* of *Udararoga*. It is also mentioned in *Mahabhutarava Grta* of *Bhuta Pratishedha*. ^[13]

In *Samgraha Kala* texts like *Astanga Samgraha*, *Sarangdhara Samhita*, *Cakradatta* are defined. They are collection of valuable things from *Samhitas* and addition of timely coming knowledge. ^[14]

SYNONYMS OF AJAGANDHA:

Synonyms are one of the pathways to reach the drug or to understand or explain a drug. Synonyms were a part of descriptive methodology of ancient time having potency to guide as well as misguide the recipient by resolving and / or creating controversy respectively. Casting a glance on all the synonyms we observe the following.

<i>Barbara</i>	-	-	-	+	+	+	-	-	+
<i>Gandha</i>	-	-	-	+	+	-	-	-	+
<i>Tungi</i>	-	-	-	+	+	+	+	-	+
<i>Putimayurika</i>	-	-	-	+	+	+	+	+	+
<i>Putikita</i>	-	-	-	-	-	+	+	-	-
<i>Putibarbara</i>	-	-	-	-	-	+	-	-	-
<i>Sakambhara</i>	-	-	-	-	-	-	+	-	-
<i>Uragandha</i>	-	-	-	-	-	-	-	+	-
<i>Brahmagarbha</i>	-	-	-	-	-	-	-	+	-
<i>Brahmi</i>	-	-	-	-	-	-	-	+	-
<i>Surapuspa</i>	-	-	-	-	-	-	-	+	-
<i>Sugandhika</i>	-	-	-	-	-	-	-	-	+
<i>Kabari</i>	-	-	-	-	-	-	-	-	+

Properties include a lot of things starting from *Rasa*, *Virya*, *Vipaka*, upto the therapeutic indications. Going

through the *Rasapancaka* of *Ajagandha* in *Samhitas* and *Nighantus* the following picture comes up.

TABLE –3

GUNAKARMAS OF AJAGANDHA

<i>Guna</i>		<i>Ca</i>	<i>Su</i>	<i>Va</i>	<i>Dh.N</i>	<i>So.N</i>	<i>M.Ni</i>	<i>Kai.N</i>	<i>R.N</i>	<i>Sa.N</i>
		.	.	.	<i>i.</i>	<i>i.</i>	.	<i>i.</i>	<i>i</i>	<i>i.</i>
	<i>Katu</i>	+	-	-	-	-	+	+	+	+
<i>Rasa</i>	<i>Tikta</i>	-	-	-	-	+	-	-	-	-
	<i>Kasaya</i>	+	-	-	-	-	-	-	-	-
<i>Vipaka</i>	<i>Katu</i>	-	-	-	-	-	-	+	-	-
	<i>Usna</i>	-	-	-	+	-	-	-	+	+
<i>Virya</i>	<i>Sita</i>	-	-	-	-	-	-	-	-	-
	<i>Laghu</i>	-	-	-	-	-	+	+	-	-
<i>Guna</i>	<i>Ruksha</i>	-	-	-	-	-	+	+	-	-
	<i>Tiksna</i>	-	-	-	-	-	+	+	-	-
	<i>Vataghna</i>	-	-	-	+	-	-	-	+	+
	<i>Kaphaghna</i>	-	-	-	+	-	-	-	-	-
<i>Dosaghnat</i>	<i>Vatakaphaghna</i>	-	-	-	-	-	+	+	-	-
<i>a</i>	<i>Sarvadoshagh</i>	-	-	-	-	+	-	-	-	-
	<i>ni</i>									
	<i>Dosakara</i>	+	-	-	-	-	-	-	-	-

Ajagandha is also used in a variety of diseases and conditions in *Samhita Kala* and *Nighantu Kala* which shows further increase in knowledge of properties of the

drug and its therapeutic uses. The table shows the various conditions and indications of *Ajagandha* from *Samhita Kala* up to *Nighantu Kala*.

TABLE - 4

THERAPEUTIC INDICATIONS AND ACTION OF AJAGANDHA

Indications	Ca	Su	A.S	A.H	Dh.Ni	So.Ni	M.Ni	Kai.Ni	R.Ni	Sa.Ni
<i>Sirsavirecana</i>	+	-	-	-	-	-	-	-	-	-
<i>Sulaprasamana</i>	+	-	-	-	+	-	-	-	+	+
<i>Rocana</i>	+	-	-	-	-	+	-	+	-	-
<i>Durgandha</i>	+	-	-	-	-	-	-	-	-	-
<i>Dosotklesakara</i>	+	-	-	-	-	-	-	-	-	-
<i>Virecana</i>	+	+	+	+	-	-	-	-	-	-
<i>Visamajvara</i>	+	-	-	+	-	-	-	-	-	-
<i>Gulma</i>	+	+	+	+	+	-	-	-	+	+
<i>Udara Roga</i>	+	-	+	+	-	-	-	-	+	+
<i>Kasa</i>	+	-	-	-	-	-	-	-	-	-
<i>Urusthambha</i>	+	-	-	-	-	-	-	-	-	-
<i>Krmi</i>	+	-	-	-	-	-	-	-	-	-
<i>Sopha</i>	-	+	+	-	-	-	-	-	-	-
<i>Mahavatavyadhi</i>	-	+	+	-	-	-	-	-	-	-
<i>Granthi</i>	-	+	+	-	-	-	-	-	-	-
<i>Bhuta Graha</i>	-	+	-	+	-	-	-	-	-	-
<i>Visarpa</i>	-	-	+	-	-	-	-	-	-	-
<i>Unmada</i>	-	-	+	-	-	-	-	-	-	-
<i>Mukharoga</i>	-	-	+	-	-	-	-	-	-	-
<i>Visa</i>	-	-	+	-	-	-	-	-	-	-
<i>Anaha</i>	-	-	-	-	+	-	-	-	-	-
<i>Jvara</i>	-	-	-	-	+	+	-	-	-	-
<i>Asthila</i>	-	-	-	-	+	-	-	-	-	-
<i>Agnidipana</i>	-	-	-	-	+	+	+	-	-	-
<i>Mukhavaisadya</i>	-	-	-	-	-	+	-	-	-	-
<i>Hrdya</i>	-	-	-	-	-	-	+	+	-	-
<i>Drstipaha</i>	-	-	-	-	-	-	+	+	-	-
<i>Sukrapaha</i>	-	-	-	-	-	-	+	+	-	-
<i>Karnavrana</i>	-	-	-	-	-	-	-	-	+	+
<i>Karnasula</i>	-	-	-	-	-	-	-	-	+	+
<i>(Pita) Anjane Hita</i>	-	-	-	-	-	-	-	-	+	+

Synonyms of *Ajagandha* referred to other plants in *Nighantu Kala*.

As synonyms are indicative of characteristics of the plant, plants showing similar characteristics are indicated by the same name creating confusion. Some

synonyms of *Ajagandha* are thus referred to some other plants which are as follows.

1. *Kharapuspa* - *Vanatulasi*, *Ksavaka*, *Marubaka*
2. *Barbara* – *Vanatulasi*
3. *Karavi* – *Ajamoda*, *Satapuspa*, *Jiraka*
4. *Uragandha* – *Yavanika*

These are mainly used in *Nighantus*. In *Samhitas* these were taken as different plants.

2. *Tilaparni*

Tilaparni is mostly referred as Saka in *Samhita*.^{[15] [16] [17]} It is used in Visamajvara by *Carakacarya*^[18] and in Visa and Slesmasamsamana by

Susrutacarya.^[19]

Later *Tilaparni* is mentioned in *Palakapya Samhita* and *Harita Samhita*.

It is also mentioned in *Sarangdhara Samhita* in a formulation for Karnasula.^[20]

SYNONYMS OF *TILAPARNI*:

Tilaparni is described in *Samhitas* and *Nighantus* as follows.

TABLE – 5

SYNONYMS OF *TILAPARNI* IN *SAMHITAS* AND *NIGHANTUS*[#]

Synonym	Ca.	Su.	Va.	Kai.Ni.	R.Ni.	Ni.R.
<i>Tilaparni</i>	+	+	+	+	-	+
<i>Tilaparnika</i>	+	-	-	-	-	-
Badaraka	-	-	-	+	-	-
Barbara	-	-	-	+	-	-
<i>Ajagandha</i>	-	-	-	-	+	-

Till *Kaiyadeva Nighantu* nobody calls *Tilaparni* as *Ajagandha*, whereas *Raja Nighantu* mentions it as synonym of *Ajagandha* and creates confusion. These are two different plants according to *Caraka Samhita* as he quotes both in the *Sakavarga* and *Harita Varga* separately as follows.

Tilaparni –

Nadi Kalaya Gojihva vartakam Tilaparnika |

Kaulakam Karkasa Naimabam Sakam Parpatakam ca Yat |

Kaphapittaharam Tiktam Sitam Katu Vipacyate || *Ca. Su.* 27/97

TABLE – 6

GUNAKARMAS OF *TILAPARNI*[#]

Guna		Ca.	Su.	Va.	Kai.Ni.	Ni.R.
<i>Rasa</i>	<i>Katu</i>	-	+	-	+	+
	<i>Tikta</i>	+	-	+	+	+
<i>Vipaka</i>	<i>Katu</i>	+	-	+	+	-
	<i>Usna</i>	+	+	-	+	+
<i>Virya</i>	<i>Sita</i>	+	-	-	-	-

And

Ajagandha –

Dhanyakam CAjagandha ca Sumukhasceti Rocanah |
Sugandha Natikatuka Doshanutklesayanti ca || *Ca. Su.* 27/97-3

Thus it becomes clear that these two are different plants, according to

Carakacarya.

PROPERTIES:

Rasapancaka and *Dosaghnata* of *Tilaparni* is given in *Samhitas* and *Nighantu* is as below.

<i>Guna</i>	<i>Laghu</i>	-	+	-	+	+
	<i>Kaphaghna</i>	+	+	+	+	+
	<i>Pittaghna</i>	+	-	+	-	-
<i>Dosaghnata</i>	<i>Vataghna</i>	-	+	-	-	-
	<i>Dosakara</i>	-	-	-	-	+
	<i>Vatala</i>	-	-	+	-	-

From the table it seems that there is a lot of variation in describing the Rasapancaka of *Tilaparni* in *Samhitas* among themselves and in *Samhitas* and *Nighantus*.

Due to the variation in describing the properties, the therapeutic indications also vary but the rationality between them remains. The therapeutic indications are as follows.

THERAPEUTIC INDICATIONS:

TABLE – 7

THERAPEUTIC INDICATIONS AND ACTION OF *TILAPARNI* [#]

Indication	Ca.	Su.	Va.	Sa.	Kai. Ni.	Ni. R.
Jvara	+	-	-	-	-	-
Visa	-	+	-	-	-	-
Sopha	-	+	-	-	+	+
Rocana	-	+	-	-	+	+
Grahi	-	-	+	-	+	+
Karnasula	-	-	+	-	-	-
Kustha	-	-	-	-	+	+
Vatajvara	-	-	-	-	+	+
Gulma	-	-	-	-	+	+
Anaha	-	-	-	-	+	+
Ama	-	-	-	-	+	+
Sula	-	-	-	-	+	+
Dipana	-	-	-	-	+	+

3. SUVARCALA:

According to *Caraka Samhita*:

Suvarcala is a *Supya Saka* which is *Guru*, *Ruksa*, *Visthambhi* on digestion, *Madhura*, *Sita* *Virya* and *Purisa* *Bhedana*.^[21]

According to *Susruta Samhita*:

Suvarcala is *Sodhana*, *Utsadana*, *Tikta* *Saka*, *Garbhasangahara*, *Vranahara* and *Sophahara*.

Its *Phala* is *Usna* and *Phala* *Taila* is *Tiksna*, *Laghu*, *Usna*, *Katu*, *Katu* *Vipaki*, *Sara*, *Vatakaphahara*, *Krmighna*, *Prameha* and *Sirorogahara*. Its *Saka* is *Raktapittahara*, *Hrdya*, *Laghu*, *Kusthaghna*, *Mehahara*, *Jvarahara*, *Swasahara*, *Kasahara* and *Arucihara*.^[22]

Dalhana mentions it to be Suryavarta Bheda.

According to Vagbhata:

It is a Saka, Utsadana, Swasa - Hikkahara, Musika Visahara, Madhura, Salavana, Ruksha, Visthambhi on digestion, with Sneha after steaming and

expressing juice Natidosola, Kasahara Vranahara, Jarayu Patana and Pravahikahara.^[23] Later on *Nighantus* have mentioned it as *Adityabhakta*.

The Gunakarma and Therapeutic Indications of *Suvarcala* in *Samhita* and *Nighantus* are given as follows.

TABLE – 8 GUNAKARMAS OF SUVARCALA #

<i>Guna</i>		<i>Ca</i>	<i>Su</i>	<i>A.S</i>	<i>A.H</i>	<i>Dh</i>	<i>So</i>	<i>M.</i>	<i>Kai</i>	<i>R.</i>	<i>B.P</i>	<i>Sa</i>
		<i>Ni</i>	.	<i>Ni</i>	.	.
						<i>Ni</i>	<i>Ni</i>	.	<i>Ni.</i>	.	<i>Ni.</i>	<i>Ni</i>
							.					.
	<i>Katu</i>	-	+	-	-	+	+	-	-	+	+	+
	<i>Tikta</i>	-	+	-	-	-	-	-	-	+	-	+
<i>Rasa</i>	<i>Kasaya</i>	-	-	-	-	-	-	-	-	-	-	+
	<i>Madhura</i>	+	-	+	-	-	-	-	+	-	-	-
	<i>Lavana</i>	-	-	+	-	-	-	-	+	-	+	-
<i>Vipaka</i>	<i>Katu</i>	-	+	-	-	-	+	-	-	-	-	-
	<i>Madhura</i>	-	-	-	-	-	-	-	+	-	+	-
<i>Virya</i>	<i>Sita</i>	+	-	+	-	-	-	+	+	+	+	-
	<i>Usna</i>	-	+	-	-	+	+	-	-	-	-	+
	<i>Ruksha</i>	+	-	+	-	-	-	-	+	-	+	+
	<i>Laghu</i>	-	+	-	-	-	+	-	-	-	-	+
<i>Guna</i>	<i>Tiksna</i>	-	+	-	-	-	-	-	-	+	-	-
	<i>Sara</i>	+	+	-	-	+	+	-	-	-	+	+
	<i>Guru</i>	+	-	+	-	-	-	+	+	-	+	-
	<i>Kaphavatahara</i>	-	+	-	-	-	-	+	+	-	+	+
	<i>a</i>											
<i>Doshaghna</i>	<i>Kaphahara</i>	-	-	-	-	-	-	-	-	+	-	-
<i>ta</i>	<i>Kaphapittahara</i>	-	-	-	-	-	+	-	-	-	-	-
	<i>Vatakara</i>	-	-	+	-	-	-	-	-	-	-	-
	<i>Apittala</i>	-	-	-	-	-	-	-	-	-	+	-

TABLE – 9 THERAPEUTIC INDICATIONS OF SUVARCALA #

<i>Indications</i>	<i>Ca.</i>	<i>Su.</i>	<i>A.S.</i>	<i>A.H.</i>	<i>Dh.</i>	<i>So.</i>	<i>M.</i>	<i>Kai.</i>	<i>R.</i>	<i>B.P.</i>	<i>Sa.</i>
					<i>Ni</i>	<i>Ni.</i>	<i>Ni.</i>	<i>Ni.</i>	<i>Ni.</i>	<i>Ni.</i>	<i>Ni.</i>
<i>Visthambhi</i>	+	+	+	-	-	-	-	Jit	-	Jit	-
<i>Purisabhedana</i>	+	-	+	+	-	-	-	-	-	-	-
<i>Sodhana</i>	-	+	-	-	-	-	-	-	-	-	-
<i>Utsadana</i>	-	+	+	-	-	-	-	-	-	-	-

Garbhasanga	-	+	+	+	-	-	-	-	-	-	-
Vrana	-	+	+	-	-	-	-	-	+	-	-
Sara	-	+	-	-	+	+	-	+	-	+	+
Krmi	-	+	-	-	-	-	-	-	-	+	-
Prameha	-	+	-	-	-	-	+	+	-	+	+
Siroroga	-	+	-	-	-	-	-	-	-	-	-
Raktapitta	-	+	-	-	-	Kara	-	-	-	+	+
Hrdya	-	+	-	-	-	-	-	-	-	-	-
Kustha	-	+	-	-	-	-	+	+	+	+	+
Jvara	-	+	-	-	-	-	+	+	+	+	+
Swasa	-	+	+	+	-	-	-	+	-	+	+
Kasa	-	+	+	-	-	-	-	+	-	+	+
Aruci	-	+	-	-	-	-	-	+	-	+	+
Visa	-	-	+	-	-	-	-	-	-	-	-
Sphotaka	-	-	-	-	+	-	-	+	-	+	+
Medhya	-	-	-	-	+	-	-	-	-	-	-
Swarya	-	-	-	-	+	-	-	-	-	-	-
Rasayana	-	-	-	-	+	-	-	-	-	-	-
Asmari	-	-	-	-	-	-	+	+	-	-	+
Mutrakrchra	-	-	-	-	-	-	+	+	-	-	+
Vatarakta	-	-	-	-	-	-	-	+	-	+	+
Yoniroga	-	-	-	-	-	-	-	+	-	+	+
Pandu	-	-	-	-	-	-	-	+	-	-	-
Kandu	-	-	-	-	-	-	-	-	+	-	-
Dipana	-	-	-	-	-	-	-	-	-	-	+
Gulma	-	-	-	-	-	-	-	-	-	-	+

4. BRAHMASUVARCALA:

In the whole context *Brahmasuvarcala* finds less mention in most of the classics.

Caraka describes *Brahmasuvarcala* under *Divya Ausadhi* and as *Hiranyaksira*, *Puskarasadrpa Patra*. According to *Cakrapani* this is not such a popular drug. [24]

Brahmasuvarcala *Namausadhirya*
Hiranyaksira Puskarasadrpa Patra || *Ca.*
Ci. 1-4/7

Susruta also describes it under *Divya Ausadhi* and calls it as *Saksira*, *Padminiprakhya Aratnimatra Ksupa* and *Dvyangulasammitapatra* and its origin in *Devasunda*, *HRdavara*, *Sindha*, *Mahanada* and various watery areas. [25]

Saksira *Padminiprakhta* *Devi*
Brahmasuvarcala |
Aratnimatraksupaka
Patrairdvayangulasammitaihi || *Su. Ci.*
30/21.

Devasunde *HRadavare* *Tathasindhau*
Mahanade |
DRsyate *ca* *Jalantesu* *Medhya*
Brahmasuvarcala || *Su. Ci.* 30/ 30-31.

Here the *Rtu* of appearance is mentioned as *Jalante* i.e. *Sarad Rtu*.

Vagbhata describes it in *Rasayana Vidhi* just as *Brahmi*.

The *Nighantu* period has solved the controversy to some extent by classifying it as a *Bheda* of *Suvarcala*. As both the drugs of interest *Cleome viscosa*, Linn. and *Gynandropsis gynandra*, Linn. grow in dry areas and do not show the classical characters as well they cannot be possibly called as *Brahmasuvarcala*.

5. ADITYABHAKTA:

Now let us see the description of Adityaparnini according to *Caraka*. It is also called as *Suryabhakta*. ^[26]

*Adityaparni Namausadhira Suryakanta
Iti Vijnayate Suvarnakasira
Suryamandalakarapuspa ca || Ca. Ci. 1-4/7.*

It is a *Rasayana Ausadhi*. It gives yellow latex and its flowers are *Suryamandalakrti*. Both these characters are not available in the drugs of our study; hence we delete the consideration of *Adityaparnini* i.e. *Adityabhakta*.

Now let's see the description of our botanically identified plants in various scientific literature.

6. CLEOME VISCOSA, LINN. (FAM: CAPPARIDACEAE)

HISTORY:

Few decades back *Cleome viscosa*, Linn. was known to the world by the name *Polanisia icosandra*, W. & A. which was further renamed as *Polanisia viscosa*,

DC., *Cleome icosandra*, Linn. and in 1996 it was again renamed by the present name. It is a common tropical weed growing upto a height of 5000 ft. throughout the tropical regions in the world. Dispersal of the seeds occurs by the wind and animals like cows and buffaloes.

IDENTIFICATION:

There are about Ninety (90) species of the genus *Cleome* throughout the world, of these Ten (10) are commonly found in India. The plant is identified using the taxonomical key.

Cleome monophylla, Linn., *C. papillosa*, Steud. Nomen. ed., *C. quinquenervia*, DC., *C. stocksiana* and *C. simplicifolia*, Hook and Thoms. are the species having simple leaves hence get differentiated from *Cleome viscosa*, Linn. which has compound leaves.

Another following Five (5) species having compound leaves are differentiated from *C. viscosa* as under.

- *Cleome brachycarpa*, Vahl ex DC. has musk like odour and stamens six (6) in number, whereas *C. viscosa*, Linn. has stamens more than ten (10) and has no odour of musk.
- *Cleome aspera*, Koen ex DC. has prickles on the stem and leaves whereas *C. viscosa* is a
- pubescent herb with no prickles.
- *Cleome burmanni*, Wight and Arn. has stamens Six (6) and *C. viscosa*, has
- more than Ten (10) stamens.
- *Cleome chelidonii*, Linn. has capsule smooth and flower rosy whereas *C.*

- *viscosa* has glandular pubescent capsule and yellow flowers.
- Thus, the plant is identified. [27]

TAXONOMIC POSITION: [28]

- Kingdom: Plantae
- Division: Phanerogamea
- Sub-division: Angiospermea
- Class: Dicotyledonae
- Sub-Class: Polypetalae
- Group: Thalamiflorae
- Natural Order: Parietals
- Family: Capparidaceae
- Genus: Cleome
- Species: *viscosa* (Linn)
- Synonyms: *C. icosandra*, Linn. *Polanisia viscosa*, DC. *P. icosandra*, W&A

VERNACULAR NAMES:

INDIAN: [29] [30]

- Hindi: Hulhul, Hurhur
- Marathi: Kanphuti, Hurhur
- Gujarati: Talvani, Hurhuria, Pivala tilavana
- Beng.: Hurhuria
- Tel.: Kukhavominta, Katkuddaghu, Aria-vila
- Tam.: Nayikkadugu, Vellai, Keerai
- Kan.: Nayibela
- Mal.: Ariavila
- Punjab: Kattori
- Sindhi: Tinmani, Tilwan
- Marw.: Chorrie Ajwan, Churia Ajwani, Jangali Hulhal.
- Punj.: Bogra, Hulhul
- Duk.: Nahi-kuddaghu, Naykadughu, Nayavaylie

FOREIGN: [29] [30]

- Eng.: Wild Mustard
- Sinh.: Ran-manissa, Walaba
- Beng.: Hurhuria
- Urdu: Hulhul
- Indo China: Manmantrang, Sa. phac. ron tien.
- Arabic: BantaKalan, Bazar-ul-Banja, Chamara
- Buru: Cirlinggid
- Canarese: Nayibela
- Hausa: Namijan, Gasaya
- Malaya: Kutepeng
- Mundari: Marang Carmaniara
- Kon.: SiriKala
- Visayan: Hulayassangayan
- French: Herbe Puante, Brede Paunte
- Port Bredo: Mamma
- Tagalog: Apopoyan, Balbulanoyan, Silisian, Silisilihan

GENERAL DESCRIPTION:

HABIT:

A common annual, erect weed reaching upto one meter (1 m.) height, viscidly pubescent herb (i.e. densely clothed with glandular and simple hair).

Root: Vertical tap root with few hair like lateral roots and having distinct odour. Colour white, length 10-15 cm., thickness 0.5 to 1 cm.

Stem: Grooved or with ridges, having green colour with purplish pigmentation. Densely covered with hair. Reaches upto the height of one meter (1m) Nodal length 3-4 cm

Leaf: Palmately compound, exstipulte with 3-5 leaf lets. Petiole of the lower leaves 2.5 cm to 5 cm. long, gradually becoming shorter upwards, hairy. The

floral leaves (bracts) often sub-sessile. Leaflets elliptic oblong or obovate, acute or obtuse, the terminal the largest and reaching 3 cm x 2 cm, when five foliolate the basal pair much reduced.

Flower:

Yellow, Axillary, growing out into lax raceme. Pedicel slender, terete, hairy. Sepals greenish yellow, 4-5mm long, oblong lanceolate, glandular, pubescent outside. Petals - yellow, four in number oblong - obovate about 1 cm long, veined. Stamens exceeding twenty (20), purple or blackish coloured anthers, filament green. Ovary superior, hairy, sticky, green in colour, stigma bilobed, style 0 or 1-2 mm long.

Capsule: Dehiscent, 5 to 7.5 cm x 4 mm, erect, hairy obliquely striate, compressed, tapering towards both ends, terminated by a style about 2-3mm long. Dehiscence from the tip. along

the margins.

Seeds: Brown black when ripe. Finely transversely striate, pitted, sub globose having < 1mm diameter.

The whole plant bears a strong odour and gives a sticky touch.

Flowering: June to September

Pollination: Pollination occurs mainly due to bees and wind.

Distribution: A common weed, widely distributed throughout the warmer parts of India. Mostly growing in the tropical regions throughout the world.

Part Used: Root, Leaves, Seed, Whole plant.

Properties: Leaves: Bitter, rubefacient, vescicant Seeds: Pungent, rubefacient, vescicant, acrid Whole Plant: Irritant, Hot

USES: The therapeutic uses attributed to the plant by some books is given as below followed by a chart enclosing all together.

TABLE – 10 : Properties attributed to the plant *cleome viscosa*, linn.

Part	Properties [29] [30] [31] [32] [33] [34]
Leaves	Bitter, Rubefacient, Vesicant, Used as Vegetable also
Seeds	Pungent, Rubefacient, Vesicant, Acrid, Used in curries as flavouring agent, bears properties similar to mustard
Root	Vermifuge
Whole Plant	Hot, Irritant, Used as Vegetable also

TABLE – 11 : Therapeutic indications and formulations of *cleome viscosa*, linn.

Indication	Part used and / or formulation [29] [30] [31] [32] [33] [34]
Otorrhoea	Leaf juice as such or with oil
Otalgia	Leaf Juice as such or with oil
Purulent affections of middle ear	Leaf Juice as such or with oil
Counter irritant in skin diseases, local stimulant	Bruised leaves, application
Fresh wounds and sores	Bruised leaves, application
Boils	Bruised leaves, application

Sudorific
Headache
Digestive
Stomachic
Malaria
Piles
Lumbago
Scabies and ring worm parasiticide
Carminative
Chronic dyspepsia
Flatulence

Bruised leaves, application
Leaf juice
Leaves, seeds
Leaves, Seeds
Leaves
Leaves
Leaves
Leaves
Seeds
Seeds
Seeds

Food Value:

The plant has an acrid taste, something like mustard and is eaten by the natives as a salad. Seeds are pungent and are used as an addition to their curries in the same way that mustard is.

Drury:

The seed made into chutney has strong digestive power. The seeds of *C. viscosa* are much used by the natives chiefly the Brahmins in their curries, they are sold in all the Bazar at a rifling prise. (Roxb.)

Lisboa says that the plant is eaten boiled with chillies and salt and salad.

- G. Watt

Analysis of the edible portion after discarding the flowers and pods gave the following values.

- Moisture 81.4%
- Protein 5.64%
- Ether extractive 1.85%
- Ash 3.75%
- Ca 0.881%
- P 0.073%
- Fe 24.45 mg/100gm
- Vic.-C 203.6 mg / 100m(W. of Ind.)

7. *GYNANDROPSIS GYNANDRA*, LINN. (FAM: CAPPARIDACEAE)

HISTORY:

The plant was known to the world by the name *Gynandropsis pentaphylla*. DC. long back. Then it was renamed as *Cleome pentaphyll*, Linn. and further *Gynandropsis gynandra*, (Linn) Briq few years back. Now it is again renamed as *Cleome gynandra*. The plant is found abundantly throughout the warmer parts of India as a weed. But now it is becoming an endangered species as cash crops are growing in the field after the radical removal of weeds.

IDENTIFICATION:

The genus *Gynandropsis* has about ten (10) species in the world, of these two are found in India. Viz. *Gynandropsis gynandra*, Linn. and *G. speciosa*, DC. The plant *G. speciosa*, DC. has large rose-coloured flowers and is differentiated from *G. gynandra* which has white flowers and stamens six (6) with filaments adnate to a slender gynophore.

Gynandrophore is the main differentiating characteristic of the plant *G. gynandra*,

Linn. Gynandrophore also known as Androgynophore composed of two parts Gynophore and Androphore. This is the elongation of the thalamus. Genus Gynandropsis differs from Cleome chiefly by having the stamens separated from the petals by a long internode, the Gynandrophore.

Cultivated specimens, from which De Candolle formed his specific character, are almost glabrous, but the stems of those from India are covered with short glandular hair, often intermixed with lower ones (R. Wight).^[27]

TAXONOMIC POSITION: ^[28]

- Kingdom: Plantae
- Division: Phanerogamae
- Sub-division: Angiospermae
- Class: Dicotyledonae
- Sub-Class: Poly petalae
- Group: Thalamiflorae
- Natural Order: Parietals
- Family: Capparidaceae
- Genus: Gynandropsis
- Species: gynandra (Linn) Briq. *Cleome gynandra*, Linn.
- Synonyms: *Gynandropsis pentaphylla*, DC. *Cleome pentaphylla*, Linn.

VERNACULAR NAMES:

INDIAN: ^{[29] [30]}

- Hindi: Hulhul, Churota, Gandhuli
- Marathi: Kanphodi, Motitilavan, Pandhari tilavan
- Gujarati: Adikyakharan, Satitalvani, Tanmani.
- Beng.: Sadahurhuria, Ansarisha
- Tel.: Vaminta, Vainta, Velakura
- Tam.: Kattakadugu, Velai, Taiwela
- Kan.: Narum byale soppu

- Mal.: Karavela, Taivela
- Punjab: Kathal, Parhar
- Sindhi: Tilavana, Mabli
- Marw.: Velai, Neivaylla, Kadughu
- Bihar: Seta kata arak, Chamani, Marang Chamani.
- Raj.: Bagra
- Sant.: Kathal, Parhar
- N.W.P.: Halhal
- Dec.: Kinro
- Assam: Bhutamulla
- Kash: Gandi Buti
- Orissa: Anisorisa, Anasorisa
- Sing.: Surjavarta, Arkapushpika
- Can.: ShriKala.

FOREIGN: ^{[29] [30]}

- Eng.: Spider flower, Bastard mustard, Caravella seeds, Sambo, Dog mustard.
- Sinhalese: Vela
- Indo China: Man man tia
- Chinese: Pai hua tsai
- Husa: Gasaya
- Malaya: Manman
- Mundari: Carman, Ciarmari, Marang carmani
- Kano: Gasaya
- Krobo: Tete
- Visayan: Hulaya
- French: Cleome, Brede caya
- German: Kleome, Senfkapper
- Italian: Cleome
- Turkish: Kleome, Tamalika
- Ashant: Tete
- Awuna: Sorbui
- Ewe: Sorlwi
- Ga: Tete
- La Reunion: Pissat de chein
- New Caledonia: Ouameti hakon
- Philippines: Cincocinco, Silisihan
- Sokoto: Yarungawa

- Twi: Tete
- Tagalog: Apoyapayan,
Belabalonoyan

GENERAL DESCRIPTION:

HABIT:

It is an annual, erect, branched herbaceous weed growing upto one meter (1 m) height. The plant is pubescent with white spreading hairs.

Root: Vertical tap root with a few lateral thin and hairlike roots, colour pale yellow, 5-20 cm long and 1-3 cm thick, with distinct odour.

Stem: Bears branches, green and slightly purple colour. Mostly circular, more or less striated, clothed with white spreading white hair. Nodal length 5-7.5 cm at the base, gradually becoming less at the top. After breaking gives sticky touch, bears bitter smell.

Leaf: The leaf is exstipulate, palmately compound, 3-5 foliolate and green in colour, both the surfaces (dorsal and ventral) are covered with hair, (Glabrous). Petiole 5-9 cm long, hairy, leaflets subsessile, 2-4cm x 1.25 cm, elliptic obovate, obtuse, acute or acuminate, cuneate at the base. Margins crenet, dentate or subentire.

Flower: The infloriscence appears to be a corymbose type or dense bracteate raceme.

Pedicel - 1.25 cm - 1.75 cm long viscid, and pubescent. Bracts - Subsessile, clothed

with glandular hair. 3 foliolate with small leaflets. Sepals - Four, spreading, lanceolate glandular pubescent, green in

colour with white veins. Petals - White, four in number with distinct veins, 1-1.3 cm long broadly obovate or sub-orbicular with a long narrow claw.

Androgynophore - 2-2.5 cm long dark purple coloured. Stamens - 6 in number, sometimes one remains short, purple inserted about half way up the gynophore, subequal. Ovary - Linear oblong, glandular, seated on the top of the gynophore i.e. superior ovary, hairy, stigma purple coloured, round shaped, style about zero or absent.

Capsule: The fruit is a dehiscent capsule. 5-8 cm x 2.3 mm, viscid, pubescent, tapering at both ends, obliquely striate. Dehiscence from the base along the septum.

Seeds: Numerous dark brown to black in colour, muricate or sub orbicular. yield on oil on pressing.

The whole plant is hairy and bears a distinct smell.

The plant appears in the rainy season.

Flowering: June to September

Distribution: A common weed in waste places in the warmer parts of India. The plant is distributed worldwide in the tropical and sub-tropical countries.

Part Used: Leaves, Seeds, Root, Whole plant.

Properties and Uses: Properties attributed to the plant are

TABLE – 12

PROPERTIES ATTRIBUTED TO THE PLANT *GYNANDROPSIS GYNANDRA*, LINN.

Part	Properties ^{[31] [32] [33] [34] [35]}
Leaves	Bitter, Rubefacient, Vesicant, Sudorific, Irritant, Used as potherb and as flavouring in sauces also
Seeds	Pungent, Rubefacient, Hot, Anthelmintic
Root	Febriifuge
Whole Plant	Irritant, Purgative

USES:

Therapeutic uses of the plant quoted by various authors and experimented are given as below followed by a table enclosing all the indications

TABLE – 13

THERAPEUTIC INDICATIONS OF *GYNANDROPSIS GYNANDRA*, LINN.

Indications	Part used and / or formulation ^{[31] [32] [33] [34] [35]}
Headache	Bruised leaves application
Neuralgia	Bruised leaves application
Rheumatism	Bruised leaves application
Local Pains	Bruised leaves application
Boils	Bruised leaves application
Otalgia	Leaf juice, as such or with oil, ear drops
Otorrhea	Leaf juice, as such or with oil, ear drops
Catarrhal inflammations of middle ear	Leaf juice, as such or with oil, ear drops
Convulsions	Leaves, seeds, internally
Typhus fever	Leaves, seeds, internally
Bronchitis	Leaves
Purgative	Whole plant leaves, seeds
Anthelmintic (Round Worm)	Seeds
Sores with maggots	Seeds, Poultice
Lice in hair	Seeds, mixed with oil
Hysteria	Seeds internally
Fevers	Seeds, Root
Bilious complaints	Seeds, Root
Pustular eruptions of the skin	Whole plant, ointment with oil application
Infectious cutaneous diseases and leprosy	Whole plant, oil
Anti spasmodic	Whole plant
Snake bites	Whole plant, external application

In the feild of Ayurveda, be it any speciality, Caraka has been the great seer of all the times. Considering him as Apta an effort is made to compare the drugs according to his own set method of

Nama, Rupa and Guna. His master key to the solving of controversy:

*Ausadham Hyanabhijnatam
Namarupagunaistribhihi I*

*Vijnatam capi Duryuktam Anarthaya
Upapadyate II Ca. Su. 1/125*

Leads us to a more distinct path.

An attempt is made to compare the two drugs with the three classical drugs mentioned earlier, according to *Nama*, *Rupa* and *Guna*.

TABLE – 14

COMPARISON OF CHARACTERS OF CLASSICAL AJAGANDHA

<i>Ajagandha – Caraka</i>	<i>C.viscosa, Linn.</i>	<i>G. gynandra, Linn.</i>
Namatah		
<i>Ajagandha</i> – having odour like Aja	Distinct odour	Distinct odour
<i>Kharapuspa</i> – having rough flowers	Absent (-)	Present (+) due to Androgynophore
Rupatah		
<i>Kharapuspa</i>	-	+
<i>Mulini Dravya</i> – Root	Root is used	Root is used
<i>Saka Varga</i> – Whole plant	Whole plant is used as vegetable	Whole plant is used as vegetable
Gunatah		
<i>Rocana</i>	+	+
<i>Usna</i>	+	+
<i>Katu</i>	+	+
<i>Tikta</i>	+	+
<i>Durgandha</i>	+	+
<i>Sulaprasamana</i>	+	+
<i>Dosotklesakara</i>	+	+
<i>Virecana</i>	-	+
<i>Visamajvara</i>	+	+
<i>Gulma</i>	-	+
<i>Udara</i>	-	-
<i>Kasa</i>	-	+
<i>Urustambha</i>	-	+
<i>Krmi</i>	+	+
<i>Sopha</i>	+	+
<i>Mahavatavyadhi</i>	+	+
<i>Unmada</i>	-	+
<i>Visa</i>	+	+

Here *Rupa* and *Guna* have been given more importance than *Nama* as these two remain unchanged, where as the *Nama* changes too rapidly with a change in the place. Observing the above chart we can say that *Gynandropsis gynandra* correlates more with *Ajagandha* than *Cleome viscosa*.

(B) *SUVARCALA*:

Comparing *Suvarcala* *Nama*, *Rupa*, *Gunatah* with the two drugs shows

(A) *AJAGANDHA*:

Comparison of characters of classical *Ajagandha* according to *Nama*, *Rupa* and *Guna* with the two drugs gives us the following picture.

following picture

TABLE – 15

COMPARISON OF CHARACTERS OF CLASSICAL *SUVARCALA*

<i>Suvarcala</i> - <i>Caraka</i>	<i>C.viscosa</i> , Linn.	<i>G.gynandra</i> , Linn.
Namatah		
<i>Suvarcala</i>		
(i) Which regulates bowel	-	Purgetive
(ii) Decorative plant	-	-
Rupatah		
Suryabhakta – Affection towards Sun	-	+
Supyasaka	+ (used as vegetable)	+ (used as vegetable)
Gunatah		
Ruksa	+	+
Madhura	-	-
Sita	-	-
Purisabhedana	-	+

Though *Suvarcala* correlates Rupa wise more with Gynandorpsis gynandra, it is not Sita and Madhura and so the Cleome viscosa. Therefore both the drugs will

not come under *Suvarcala* of our classics.

(C) TILAPARNI:

Comparison of *Tilaparni* of *Caraka* with the two drugs gives us the picture as follows:

TABLE – 16

COMPARISON OF CHARACTERS OF CLASSICAL *TILAPARNI*

<i>Tilaparni</i> – <i>Caraka</i>	<i>C.viscosa</i> , Linn.	<i>G.gynandra</i> , Linn.
Namatah		
<i>Tilaparni</i> – leaves resemble with those of Tila	+	+
- Shape of leaves like tils (sesame)	+	-
- Plant which yields oil	+	+
Hulhul - Iti Loke (Chakrapani)	Vernacular name of the plant in Hindi, Marathi, Bengali and Gujarati	Showing similarity with Cleome, called as hulhul in Hindi and Sada Hurhuria in Bengali.
Rupatah		
<i>Tilaparni</i> - leaves resemble with those of Tila	+	+
- Shape of leaves like tils (sesame)	+	-

Gunatah

Tikta	+	+
Katu	+	+
Usna	+	+
Jvara	+	+
Visa	+	+
Sotha	+	+

Gunatah:

Both the herbs show similarity with *Tilaparni* mentioned by *Caraka*, but *Cleome viscosa*, Linn. is more famous as Hulhul told by Cakrapani. As Gynandropsis has similarity with the former, it is referred to as Sadahurhuria. Both the herbs have Tila like leaves (Akrti) but the leaves of *Cleome viscosa* are smaller in size than those of Gynandropsis and hence appearing more close to *Tilaparni*.

Comparing the description of all the drugs we find that Gynandropsis gynandra, Linn appears to answer the description of *Ajagandha* mentioned by *Caraka* and *Cleome viscosa* to *Tilaparni*. Another aspect of the controversy dealt with the knowledge of other various drugs known by the name *Ajagandha* and synonyms of *Ajagandha*.

These are

Ajagandha - *Tilaparni*. ^[3]

Karavi - Yamani, Ajamoda, Satapuspa, Jiraka

Barbara - Vanatulasi

Kharapuspa - Ksavaka and Marubaka
Thymus serpyllum, Linn. (Fam. Labiatae)
and Ocimum basilicum (fam. Labiatae)

Now let us deal each drug one by one.

In Raja *Nighantu* *Ajagandha* and *Tilaparni* are told as synonyms for each other. But in *Caraka Samhita* both are told different drugs in the 27th chapter of Sutrasthana. *Ajagandha* in 27/173 and

Tilaparni in 27/97. So it becomes clear that for *Caraka* these were two different plants. (Ref. 1 and 2)

1. Karavi

Karavi is used for *Ajagandha* as well as Yavani, Satapuspa and Jiraka but for *Caraka* these were different drugs as in the *Caraka Samhita* in the preparation of Narayana Curna Karavi, Yavani, Satapuspa, Jiraka and *Ajagandha* all are taken together (Ca. Ci. 13/126) (Ref. 5) Satapuspa is already identified as different plant from these two. Ajamoda is also different from *Ajagandha* as it is told along with *Ajagandha* in Ca. Ci. 5/79. in Hingvadi Grta. (Ref. 4)

2. Karapuspa

It is also used for Marubaka and Ksavaka along with *Ajagandha*. But in *Caraka Samhita* in Vimana Sthana Chapter 8 all the three drugs have separate mention in one Sloka of Katu Dravyas (Ca. Vi. 8/142). (Ref.6)

3. Barbara

It is also used for Vanatulasi, Vanatulasi is also known by the name Kutheraka. The name Kutheraka finds mention with Kharapuspa which indicates its separate entity. (Ref.6)

Thus, it becomes clear that these all plants are different from *Ajagandha* of *Caraka*.

Now coming to the botanically identified plants.

1. *Ocimum basilicum* - (Fam. Labiatae)

Though it is identified as Tulasi, it is also taken as *Ajagandha*. But it has Aromatic smell whereas *Ajagandha* indicates bad smell or odour which is present in *Gynandropsis gynandra*. Hence can be excluded from *Ajagandha*.

2. *Thymus serpyllum* Linn. (Fam. Labiatae)

According to Acarya P. V. Sharma it is taken as *Ajagandha*. But the plant has sharp and pleasant taste and aromatic smell, which is absent in classical *Ajagandha*. Though the leaves are told to possess laxative property the plant is said to have astringent action on the bowels. (*Thymus* acts as an astringent on bowels - *Pharmacographia indica*). It is taken for the name *Vanayavani* given to it by local people. But *Gynandropsis* also has the vernacular name *Chauri Ajawan* indicating *Ajavayan* nature. *Gynandropsis* possesses the purgative activity but it is less used for the purpose in practice. And *Ajagandha* is mainly used as *Sukhavirecana* in various diseases told in *Caraka Samhita*.

Thus, it becomes clear that *Gynandropsis gynandra* is more nearer to *Ajagandha* than *Thymus serpyllum*. [36] [37]

CONCLUSION:

Comparisons of all the above discussed classical plants with *Cleome viscosa*, Linn. and *Gynandropsis gynandra*, Linn. shows *Ajagandha* being similar to *Gynandropsis* and *Tilaparni*

being similar to *Cleome*. It also becomes clear that *Tilaparni*, *Karavi*, *Khapapuspa* and *Barbara* are different plants from *Ajagandha* according to *Caraka Samhita*. Thus, *Gynandropsis* can be taken as *Ajagandha* of *Caraka* and *Cleome* can be taken as *Tilaparni* of *Caraka Samhita*. Further these plants should be studied on different clinical conditions told in the classics to support the finding.

References for Controversial aspect of *Ajagandha*:

1. *Ajagandha*

Dhanyakam CAjagandha ca
Sumukhasceti Rocanaha /
Sugandha Natikatuka Dosanutklesayanti
ca // *Ca. Su.* 27/173

2. *Tilaparni*

Nadi Kalayam Gojihva Vartakam
Tilaparnika /
Koulakam Karkasam Naimbam Sakam
Parpatakam ca yat /
Kaphapittaharam Tiktam Sitam Katu
Vipacyate // *Ca. Su.* 27/97

3. *Suvarcala*

Sarvani Supyasakani Phanji Cilli
Kutumbakah /
Alukani ca Sarvani Sapatrani Kutinjaram
/
Sanasalmalipuspani Karbudarah
Suvarcala // *Ca. Su.* 27/98-99

4. *Ajamoda* and *Ajagandha*

Hingu Trikatukam Patha|
AjamodaAjagandhe ca Tintidika
Amlavetasou // *Ca. Ci.* 5/79

5. *Ajagandha* and *Karavi* with *Satapushpa* and *Yavani*

Yavani Hapusa Dhanyam Triphala
Copakuncika /
Karavi Pippalimulam Ajagandha Sati
Vaca /
Satahva Jirakam Vyosam Svarnaksiri
Sacitraka // *Ca. Ci.* 13/125-26

**6. *Kharapuspa* along with *Ksavaka*,
Phaninjhaka (*Marubaka*) and
*Kutheraka***

Pippalippalimula.....Kharapuspa
Bhustruna Sumukha Surasa Kutheraka
Arjaka Gandira Kalamalaka Parnasa
Ksavaka Phaninjbhaka Ksara Mutra
Pittani Iti // Ca. Vi. 8/142

References:

1. Vanaushadhi Nidarshika - Prof. R. Singh, 2nd edition, Jivan Shiksha Mudranalaya, Varanasi.
2. Dravyaguna Vijnana - by Yadavji, Trikamji, Acharya, Uttaradha.
3. Some controversial drugs in Indian Medicine - Vd. B.G. Shah, 1982, Chaukhamba Orientals, Varanasi.
4. Bhavaprakash Nighantu with commentary of Dr. K.C. Chuneekar, Dr. Gangasahay Pandeya, Chaukhamba Bharati Academy, Reprint 1999
5. Shaligrama Nighantu by Shaligram Vaishya, Khemraj Shrikrushnadas Publication, Mumbai, 1999
6. Aushadhi Samgraha by Dr. V.G. Desai, Rajesh Prakashan, Second edition 1975
7. Dravyaguna Shastra by Dr. Bodas, Maharashtramitra Mudranalaya, Forth edition, 1986
8. Bhavaprakasha Nighantu - with commentary of Dr. Vishwanath Dwivedi.
9. Dravyaguna Vijnana - Prof. P.V. Sharma, Vol. I to IV.
10. Chakradatta by Chakrapani Datta, Hindi Commentary by Dr. Indradeva Tripathi, Chaukhamba Sanskrit Sansthan, Varanasi, Second Editon, 1994
11. Charak Samhita with Ayurved Deepika commentary of Chakrapani, Vd.Jadavaji Trikamji Acarya, Munshiram Manoharlal Publishers Pvt. Ltd., Fifth edition 1992 Chikitsasthana 5/70, 79; 13/126; 18/146; 27/ 43; Kalpasthana 7/22,54; 11/13,17; 12/12,33,35.
12. Sushrut Samhita with Nibandh Samgraha commentary of Dalhana, Jadavaji Trikamaji Acarya, Chaukhamba Surbharati Prakashan, Varanasi, Reprint 1994; Sutrasthana 46/222,239.
13. Astang Hridaya with commentary Sarvang Sundara of Arunadatta, Pt. Harishasyri Bhishagacarya, Krishna Das academy, Varanasi 1982; Chikitsasthana 1/160; 14/10; 15/14; Kalpasthana 2/10; Uttaraasthana 5/20.
14. Astahg Samgraha - with Sarvang Sundara, Padarthchandrika and Ayurved Rasayana commentary, Khemaraj Shri Krishnadas Publication, Mumbai, 1928; Sutrasthana 14/3;Chikitsasthana 5/101; 16/3,10; 17/29; 19/15; 20/6; 23/33; Kalpasthana 1/8; 2/65; Uttaraasthana 6/24; 9/40; 26/B21749; 35/3; 40/103; 43/58.
15. Charak Samhita with Ayurved Deepika commentary of Chakrapani, Vd.Jadavaji Trikamji Acarya, Munshiram Manoharlal Publishers Pvt. Ltd., Fifth edition 1992; Sutrasthana 27/97.
16. Sushrut Samhita with Nibandh Samgraha commentary of Dalhana, Jadavaji Trikamaji Acarya, Chaukhamba Surbharati Prakashan, Varanasi, Reprint 1994; Sutrasthana 46/222,239.
17. Astang Hridaya with commentary Sarvang Sundara of Arunadatta, Pt. Harishasyri Bhishagacarya, Krishna

- Das academy, Varanasi 1982; Sutrasthana 6/76.
18. Charak Samhita with Ayurved Deepika commentary of Chakrapani, Vd.Jadavaji Trikamji Acarya, Munshiram Manoharlal Publishers Pvt. Ltd., Fifth edition 1992; Chikitsasthana 3/267.
 19. Sushrut Samhita with Nibandh Samgraha commentary of Dalhana, Jadavaji Trikamaji Acarya, Chaukhamba Surbharati Prakashan, Varanasi, Reprint 1994; Sutrasthana 39/9; Kalpasthana 6/14.
 20. Sharangdhar Samhita with commentary of Adhamalla, Pt. Parashuramshastri Vidyasagar, Krishnadas Academy, Varanasi, Reprint 1986; Uttarakhand 17/134,135.
 21. Charak Samhita with Ayurved Deepika commentary of Chakrapani, Vd.Jadavaji Trikamji Acarya, Munshiram Manoharlal Publishers Pvt. Ltd., Fifth edition 1992; Sutrasthana 27/99.
 22. Sushrut Samhita with Nibandh Samgraha commentary of Dalhana, Jadavaji Trikamaji Acarya, Chaukhamba Surbharati Prakashan, Varanasi, Reprint 1994; Sutrasthana 37/12, 31; 42/18,62,3, 274; 45/115, Shashirasthana 10/11; Chikitsasthana 2/82; 23/15.
 23. Astahg Samgraha - with Sarvang Sundara, Padarthchandrika and Ayurved Rasayana commentary, Khemaraj Shri Krishnadas Publication, Mumbai, 1928; Sutrasthana 7/138; Chikitsasthana 6/38; Uttarakhand 30/35 and 48, 46 / 24 and 26
 24. Charak Samhita with Ayurved Deepika commentary of Chakrapani, Vd.Jadavaji Trikamji Acarya, Munshiram Manoharlal Publishers Pvt. Ltd., Fifth edition 1992; Chikitsasthana 1-4/7.
 25. Sushrut Samhita with Nibandh Samgraha commentary of Dalhana, Jadavaji Trikamaji Acarya, Chaukhamba Surbharati Prakashan, Varanasi, Reprint 1994; Chikitsasthana 30/21, 30-31.
 26. Charak Samhita with Ayurved Deepika commentary of Chakrapani, Vd.Jadavaji Trikamji Acarya, Munshiram Manoharlal Publishers Pvt. Ltd., Fifth edition 1992; Chikitsasthana 1-4/7.
 27. Anatomy of the Dicotyledons, C.R. Mecalfe and L. Chalk, Vol. I, Oxford, 1950; Page 87-95.
 28. International Rules of Botanical Nomenclature - 1947, NO. 3078, Pg. 64.
 29. Dr. K.M. Nadkarni's, the Indian Materia Medica, Popular Prakashana, Bombay - Reprint 1993, Page 351
 30. Materia Indica. W. Ainslie, Neeraj Publishing House, Delhi, Vol. II, Pg. 223.
 31. Wealth of India, Raw Materials, Council of Scientific & Industrial Research, New Delhi, 1959, Vol. C
 32. Indian plants and drugs with their Medical properties and uses - K.M. Nadkarni, 1910, pg. 175-176.
 33. Indian Medicinal Plants - Kirtikar and Basu, Vol. I, Pg. 183-189.
 34. Wealth of India, Raw Materials, Council of Scientific & Industrial Research, New Delhi, 1959, Vol. C
 35. Dr. K.M. Nadkarni's, the Indian Materia Medica, Popular Prakashana, Bombay - Reprint 1993, Page 599-600
 36. Pharmacographia Indica - William Dymock, Published by M/S Bishen

Singh Mehendra Pal Singh, Dehra Dun Part III, 1999, Page 109-114

37. The Wealth of India, Publications & Information Directorate, CSIR, New Delhi, Raw Materials Vol X:Sp-W, Page 235

References from Nighantus as follows:

1. Aushadhi Nighantu - Shri Kumar Krushna Sankalita
2. Bhavaprakash Nighantu with commentary of Dr. K.C. Chuneekar, Dr. Gangasahay Pandeya, Chaukhamba Bharati Academy, Reprint 1999
3. Bhavaprakasha Nighantu - with commentary of Dr. Vishwanath Dwivedi.
4. Dhanvantary Nighantu with commentary by Dr. Oza and Dr. Mishra, Chaukhamba Surbharati Prakaashan, Varanasi, First Edition 1985.
5. Kaiyadeva Nighantu, Acarya P. V. Sharma and Dr. Guruprasad Sharma, Chaukhamba Orientalia, Varanasi, First Edition 1979
6. Madanpal Nighantu - Khemraj Shrikrushnadas Publication, Mumbai.
7. Nighantu Adarsha - Vd. B.G. Shah, Chaukhamba Vidya Bhavan, Varanasi.
8. Nighantu Kalpadruma - Vd. Sudershan Lal Trivedi, Varanasi.
9. Nighantu Ratnakar - Krushnashastry Navare, Nirnaya Sagar, Mumbai 1936.

10. Nighantu Shiromani - by Vaidya Siddheswara

11. Raja Nighantu by Pandit Narhari, Hindi commentary by Dr. Indradeo Tripathi, Krishnadas Academy, Varanasi, 1998

12. Shaligrama Nighantu by Shaligram Vaishya, Khemraj Shrikrushnadas Publication, Mumbai, 1999

13. Shankar Nighantu - Rajvaidya Shankar Dutta Daur., 1935

14. Shodhal Nighantu - by Shodhala, Oriental Institute, Baroda, 1978.

15. Studies on Medicinal Plants and Drugs in Dhanvantari Nighantu - Dr. S.D. Kamat, Chaukhamba Sanskrit Prakashana, Delhi.

Abbreviations –

- A.H. – Ashtanga Hridaya
- A.S. – Ashtanga Samgraha
- B.P. Ni. – Bhavaprakasha Nighantu
- Ca. – Caraka Samhita
- Ci. – Cikitsasthana
- Dh. Ni – Dhanvantari Nighantu
- Ka. – Kalpasthana
- Kai. Ni. – Kaiyadev Nighantu
- M. Ni. – Madanapala Nighantu
- R. Ni. – Raja Nighantu
- Sa. Ni. – Saligrama Nighantu
- So. Ni. – Sodhala Nighantu
- Su. – Sushruta Samhita
- Su. (After some other abbreviation) – Sutrasthana

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