

## CRITICAL ANALYSIS OF KUTAJA IN BRIHATRAYI: A REVIEW ARTICLE

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### ABSTRACT

*Kutaja* is botanically identified as *Holarrhena antidysenterica* Wall. belonging to the family Apocynaceae. This is a tree or large shrub and the useful parts are stem bark, seed and flowers. *Acharya Caraka*, *Sushruta* and *Vagbhata* are considered as the *Brihatrai* of *Ayurveda*, and all of them mentioned the indications and therapeutic efficacy of the drug *Kutaja*. In this article, literatures on *Kutaja* will be documented from *Brihatrayi* and systematically reviewed and presented. This is a major ingredient in *Kutajarista*, *Kutajavalehya*, *Bhrihatgangadhara churna*, *Palashabheejadi churna* *Bhrihanmarichadhy taila*, etc. The drug has *Tikta Kashaya Rasa*, *Laghu Ruksh Guna*, *Katu Vipaka* and *Sheeta Veerya* and is mainly used in the management of *Atisara* (diarrhoea), *Raktapitta* (bleeding disorders), *Arshas* (Hemorrhoid) etc.

**KEYWORDS:** *Kutaja*, *Brihatrayi*, *Stambhana*, *Arshas*, *Atisara*.

### INTRODUCTION

*Kutaja*, botanically known as *Holarrhena antidysenterica* Wall. is a plant species from the Apocynaceae family. The plant is found throughout the drier or deciduous forest of India at low elevations and ascending to 1100m in the tropical Himalayan tract, from Chenab eastwards. It is common in Sal forests, Aravalli hills, Bihar, Central India, South Konken and Kerala.<sup>[1]</sup>

The Stem bark, Seed, Flowes, Leaves<sup>[2]</sup> are the useful part of the plant. *Kutaja* is used in the management of *Atisara* (diarrhoea), *Raktapitta* (bleeding disorder), *Arshas* (hemorrhoid), *Prameha* (diabetes) and is a major ingredient in the formulations like *Kutajarista*, *Kutajavalehya*, *Bhrihatgangadhara churna*, *Palashabheejadi churna* *Bhrihanmarichadhy taila*, etc.

### Vernacular names

**Table No. 1: Vernacular names of *Kutaja*.**<sup>[3,4]</sup>

Language	Name
Arabic	Lasanul-aasafirul-murr
Assamese	Dutkhuri, Dudkhuri
Bengali	Kurchi, Kureya, Tita-indarjou
Bihar	Dudkhuri
English	Kurchi, Conessi, Tellicherry bark
Gujarati	Indrajavanu, Dhowda, Kuda, Kari
Hindi	Kurci, Kuda, Karchi, Kura, Karra, Kurchi, Karva-indrajou
Kannada	Kodasige, Koodsaloo, Korchie, Kodagasana, Beppale
Kashmiri	Andusurun
Konkani	Kudo
Malayalam	Kutakappaala, Kudagapala, Kaipa-kutap-palavitta
Marathi	Kuda, Pandhra kuda, Kodaga, Dola-kuda
Mizo	Hlengpa
Nepali	Ban khirro, Madhire, Khirro, Indrajau, Kiri
Persian	Zabane-kun-jashke-talkh
North west Provinces	Kuer, Kura, Moriya
Punjabi	Keor, Kewar
Oriya	Kherwa, Pitakorwa, Patrukurwa

Sanskrit	Kutaja
Santali	Hat
Tamil	Kutasappalai, Veppalai, Kodagapalei, Indropam, Kashappu-vetpa-larishi, Kulap-palai-virai
Telugu	Kodisapala-vittulu, Pala, Kodaga, Istaraku pala, Vistaraku pala, Amkudu-vittum, Palakodsa

**Morphology<sup>[5]</sup>**

**Habit** - A glabrous or pubescent tree or a large shrub.

**Leaves** - Nearly sessile, ovate-oblong, acute.

**Flowers** - White, in terminal corymbose cyme.

**Fruits** - Follicles, glabrous, slender, terete, 20-37cm (about 1.21 ft) long, distinct from the base, usually curved and touching at the tips.

**Seeds** - Numerous, crowned with a tuft of long, silky hairs.

**MATERIALS AND METHODS**

The information was collected from the Ayurvedic classical literature, relevant textbooks of Dravyaguna, recent scholarly articles. Literatures on Kutaja will be documented from Brihatrayi and will be systematically reviewed and presented.

**Kutaja in Brihatrayi****Table No. 2: Classification of Kutaja in Brihatrayis.** <sup>[6,7,8]</sup>

Samhita	Varga
Caraka Samhita	Arshoghna varga, Kandughna varga, Sthanyashodana varga, Asthapanopaga varga
Sushruta Samhita	Aragwadadhi gana, Pippalyadi gana, Haridradi gana, Brihatyadi gana, Lakshadi gana
Astanga Hridaya	Chardigna gana, Niruha gana, Vatsagadi gana

**Table No. 3: Kutaja mentioned in Caraka Samhita.** <sup>[9]</sup>**SUTRASTHANA**

SL. No	Reference	Meaning
1	Su.1/83	Kutaja is one among the 19 Phalini dravyas (fruits)
2	Su.1/84	Among the Phalini dravyas Kutaja along with few other drugs can be used for Vamana (emesis) as well as Asthapan Basti (decotion enema)
3	Su.3/4	Among the 6 types of Churna and Lepa for Krcchra Kusta (skin disorders that are difficult to cure), Nava kilasa (lecoderma of recent origin), Suresalupta (alopecia) etc Kutaja along with 5 other ingredients are a type.
4	Su.3/14	Kutaja is one among the ingredient of Haridradi Lepa which is indicated in Kusta (skin disorders)
5	Su.4/4	Out of 600 Virechanayogas (includes both emetics and purgatives) 18 formulations are with Kutaja (vamana yoga)
6	Su.4/11	One among Arshoghna and Kandughna Mahakashya varga
7	Su.4/12	The fruits of Kutaja is one among Sthanyashodana mahakashaya varga
8	Su.4/13	The fruits of Kutaja is one among Asthapanopaga mahakashaya varga
9	Su 23/10	Decoction of Kutaja along with few other drugs are used for the management of Santhapranajanya vyadhi (diseases caused by over nutrition)
10	Su 25/40	Bark of Kutaja is the best for causing astringent effect and alleviating Kapha, Pitta and Rakta
11	Su.30/63	Kalpasthanana of Caraka samhita has 12 chapters among one is the chapter dealing with the preparation of Kutaja

**VIMANASTHANA**

SL. No	Reference	Meaning
1	Vi.7/21	One among the method adopted for counter acting the factors responsible to produce Krimi (parasite) is the preparation of Pupalika (a type of cake) prepared by the juice of Kutaja or with any other plants mentioned.
2	Vi.8/135	The fruits of Kutaja is used for Vamana karma (emetic therapy)
3	Vi.8/143	Kutaja is one among the Tikta skandha (drugs which belongs to the group of bitter taste)

**SARIRASTHANA**

SL.No	Reference	Meaning
1	Sa.8/41	<i>Asthapana basti</i> (Decotion enema) containing the <i>Kalka</i> (paste) of <i>Kutaja</i> and few other drugs are used in the removal of <i>Apara</i> (Placenta)
2	Sa.8/56	For the treatment of <i>Sihanyadusti</i> (vitiated breast milk) the decoction of the fruits of <i>Kutaja</i> along with other drugs can be administered by considering the type of <i>Dosha</i> responsible for vitiation

**CHIKITSASTHANA**

SL.No	Reference	Meaning
1	Chi.3/201	<i>Kutaja</i> is one among the ingredient of decoction for <i>Anyedyuska</i> type of <i>Vishama jwara</i> (a type of fever)
2	Chi.3/210	Decoction prepared out of <i>Kutaja</i> along with other ingredient cures <i>Sannipata jwara</i> (a type of fever).
3	Chi.3/213	Seeds of <i>Kutaja</i> along with other drugs are the ingredients of <i>Brihatyadi gana</i> which is indicated in <i>Sannipata jwara</i> (a type of fever), <i>Kasa</i> (Cough) and it's <i>Upadrava</i> (complications).
4	Chi.3/243	<i>Kutaja</i> should be added with other <i>Dravyas</i> in the form of <i>Kalka</i> (paste) in case of <i>Niruha basti</i> (decoction enema) in case of <i>Jwara</i> (fever)
5	Chi.3/258	One among the ingredients of <i>Chandanadi taila</i>
6	Chi.4/60	The fruit of <i>Kutaja</i> can be administred for the purpose of <i>Vamana karma</i> (emetic therapy) along with few other dravyas in case of <i>Adhoga raktapitta</i> (bleeding in downward direction)
7	Chi.4/89	The person affected by <i>Raktapitta</i> (bleeding disorder) is adviced to take ghee prepared with <i>Kutaja kalka</i> (Paste of <i>Kutaja</i> )
8	Chi.7/43	In case of <i>Kusta</i> (skin disorders) located in the <i>Hrudaya pradesha</i> (near the heart region) or in the center of the body, in <i>Utkleshavastha</i> (not adhered), then <i>Vamana karma</i> (emetic therapy) with fruits of <i>Kutaja</i> along with few other drugs is indicated.
9	Chi.7/47	<i>Anuvasana basti</i> (oil enema) is indicated in case of <i>Kusta</i> (skin disorders) with oil prepared out of <i>Kutaja</i> and few other drugs.
10	Chi.7/94	<i>Kutaja</i> along with few other drugs can be used as external application for curing <i>Kusta</i> (skin disorders)
11	Chi.7/95	The seeds of <i>Kutaja</i> along with few other <i>Dravyas</i> can be used externally in case of <i>Kusta</i> (skin disorders)
12	Chi.7/102	Oil prepared out of the fruits of <i>Kutaja</i> along with few other drugs can be used in case of <i>Kusta</i> (skin disorders)
13	Chi.7/109	<i>Kutaja</i> bark is one among the ingredient of <i>Tiktekshvakvadi taila</i>
14	Chi.7/113	<i>Kutaja</i> is one among the ingredient of <i>Kanakakshiri taila</i>
15	Chi.7/129	Decoction of <i>Kutaja</i> along with other drugs can be used for bath and drink by the person suffering from <i>Kusta</i> (skin disorders)
16	Chi.7/132	External application of <i>Kutaja</i> fruits along with other drugs is useful for person suffering from skin disorders
17	Chi.7/142	Seeds of <i>Kutaja</i> is one among the ingredient of <i>Tiktashadpalaka ghrita</i>
18	Chi.7/146	<i>Kutaja</i> is one among the ingredient of <i>Mahatiktaka ghrita</i>
19	Chi.7/153	Seeds of <i>Kutaja</i> is one among the ingredient of <i>Mahakhadira ghrita</i>
20	Chi.7/158	<i>Kutaja</i> along with other drugs can be used for bath, intake, and external application in case of <i>Kusta</i> (skin disorders)
21	Chi.8/108	<i>Kutaja</i> is one among the ingredient of <i>Duralabhadi ghrita</i>
22	Chi.8/111	<i>Kutaja</i> is one among the ingredient of <i>Jivantiyadya ghrita</i>
23	Chi.10/19	<i>Kutaja</i> bark is one among the ingredient of <i>Mahapanchagavya ghrita</i>
24	Chi.11/34	Both bark and fruits of <i>Kutaja</i> is one among the ingredient of <i>Koladi ghrita</i>
25	Chi.14/185	Decoction of <i>Kutaja</i> bark along with <i>Nagara</i> ( <i>Zingiber officinale</i> ) checks bleeding in the case of hemorrhoids
26	Chi.14/187	Both bark and fruits of <i>Kutaja</i> along with other drugs checks bleeding in the case of hemorrhoids. Also the same given with <i>Tandulodaka</i> ( rice wash water) in case of thirst
27	Chi.14/188	Both bark and fruits of <i>Kutaja</i> is one among the ingredient of <i>Kutajadi</i>

	189	<i>Rasakriya</i>
28	Chi.14/194	Seeds of <i>Kutaja</i> along with other ingredients can be used for making drinks in case of painful hemorrhoids
29	Chi.14/197	Both bark and fruits of <i>Kutaja</i> cooked in ghee along with other ingredient can be used in case of bleeding piles associated with pain
30	Chi.14/227	Seeds of <i>kutaja</i> is one among the ingredient of <i>Pichha basti</i>
31	Chi.15/103	Decoction of seeds of <i>Kutaja</i> along with other ingredients should be taken with <i>Koshna jala</i> (lukewarm water) in case of <i>Shoola</i> (colic pain) in <i>Grahani roga</i> (Mal absorption syndrome) caused by <i>Pitta</i> and <i>Kapha dosha</i> .
32	Chi.15/129	Both bark and fruits of <i>Kutaja</i> is one among the ingredient of <i>Nagaradya churna</i>
33	Chi.15/132	Both bark and seed of <i>Kutaja</i> is one among the ingredient of <i>Bhunimbadya churna</i>
34	Chi.15/134	Bark of <i>Kutaja</i> along with other drugs is used as the supplement to <i>Bhunimbadya churna</i>
35	Chi.15/138	Both bark and fruits of <i>Kutaja</i> is one among the ingredient of <i>Kiratyadya churna</i>
36	Chi.15/179	<i>Kutaja</i> is one among the ingredient of <i>Duralabhadya kshara</i>
37	Chi.16/103	<i>Kutaja</i> is one among the ingredient of <i>Mandoora kshara</i>
38	Chi.19/41	Bark and fruits of <i>Kutaja</i> along with <i>Ativisha</i> ( <i>Aconitum heterophyllum</i> ) and <i>Madhu</i> (should be taken with <i>Tandulodaka</i> (rice water) cures <i>Paittika atisara</i> (Diarrhoea of <i>Pittaja</i> type)
39	Chi.19/42	Powder of <i>Kutaja</i> along with other drugs is one among the recipes which are useful in <i>Pittaja</i> type of <i>Atisara</i> (Diarrhoea)
40	Chi.19/79	<i>Ghrta</i> (Ghee) prepared by adding the fruits of <i>Kutaja</i> and <i>Yavagu manda</i> (upper portion of gruel) and intake as <i>Peya</i> (drink) reduces <i>Rakta atisara</i> (Haemorrhagic diarrhoea)
41	Chi.19/80	Fruits of <i>Kutaja</i> is one among the ingredient of <i>Darvyadi ghrta</i>
42	Chi.19/85	Decoction of the seeds of <i>Kutaja</i> should be taken, while taking <i>Rasa</i> (meat soup) to cure <i>Pittaja</i> type of <i>Jatharamaya</i> (abdominal diseases)
43	Chi.19/108	Fruits of <i>Kutaja</i> along with other drugs cures <i>Kaphaja</i> type of <i>Atisara</i> (diarrhoea)
44	Chi.21/51	Fruits of <i>Kutaja</i> along with few other drugs can be used for <i>Vamana karma</i> (Emetic therapy) in case of <i>Visarpa</i> (herpes) of <i>Pittaja</i> , <i>Kaphaja</i> or both <i>Pitta Kaphaja</i> in origin.
45	Chi.23/206	In case of <i>Kitavisha</i> (insect poisoning) the fruits of <i>Kutaja</i> along with few other drugs can be administered internally
46	Chi.25/90	Decoction of <i>Kutaja</i> along with other drugs, (individually or together) can be used for <i>Vrana ropana</i> (healing of ulcers)
47	Chi.26/57	Decoction of <i>Kutaja</i> along with other drugs, and <i>Yavagu</i> (gruel) prepared out of the same drugs can be used in case of <i>Kapahaja</i> type of <i>Mutrakrcchra</i> (dysuria)
48	Chi.27/33	Fruits of <i>Kutaja</i> is one among the ingredient of <i>Sarngestadi yoga</i>
49	Chi.27/52	Warm decoction prepared with <i>Kutaja</i> along with other ingredients can be used for <i>Sechana</i> (sprinkling) in case of <i>Urusthamba</i> (spasticity of the thighs)
50	Chi.27/54	External application of <i>Kutaja</i> along with few other drugs ( <i>Vatsakadi pralepa</i> ) in case of <i>Urusthamba</i> (spasticity of the thighs)
51	Chi.30/92	<i>Kutaja</i> is one among the ingredient of <i>Pushyanuga churna</i>
52	Chi.30/100	Ghee prepared with the decoction of <i>Kutaja</i> and <i>Kashmarya</i> ( <i>Gmelina arborea</i> ) can be used for <i>Uttara basti</i> (uterine route of drug administration) in case of <i>Rakta yoni</i> , <i>Arajaska</i> , <i>Putraghni</i> (some gynecological disorders)
53	Chi.30/252	<i>Kutaja</i> along with other drugs can be used for <i>Vamana karma</i> (emetic therapy) in case of <i>Sthanyadusti</i> (vitiated breast milk)

**KALPASTHANA**

SL.No	Reference	Meaning
1	Ka.1/6	<i>Kutaja</i> is one among the 6 drugs described for <i>Vamana karma</i> (emetic therapy)
2	Ka.2/9	The fruits of <i>Jimutaka</i> ( <i>Luffa echinata</i> ) should be boiled with <i>Kutaja</i> or any of the mentioned drugs to make decoctions to make <i>Vamana kalpa</i> (recipes for emesis)
3	Ka.5/1	The fifth chapter is the <i>Vatsaka kalpam</i> deals with various preparations with <i>Kutaja</i> for <i>Vamana karma</i> (emesis)
4	Ka.5/3	There are two types of <i>Kutaja</i> . They are <i>Strikutaja</i> ( <i>Wrightia tinctoria</i> ) and <i>Pumkutaja</i> ( <i>Holarrhena antidysentrica</i> )
5	Ka.5/4	Synonyms of <i>Kutaja</i> are <i>Vatsaka</i> , <i>Sakra</i> , <i>Vrksaka</i> , <i>Girimallika</i> . The seeds are called as <i>Indrayava</i> and <i>Kalinga</i>
6	Ka.5/5	<i>Pumkutaja</i> has <i>Brihat phala</i> (big fruits), <i>Swetha pushpa</i> (white flowers), <i>Snigdha patra</i> (smooth leaves). <i>Strikutaja</i> has <i>Syama aruna pushpa</i> (black and pinkish flowers), <i>Anuvrinta</i> (small stalk) and <i>Anuphala</i> (small fruits)
7	Ka.5/6	<i>Kutaja</i> cures <i>raktapitta</i> (bleeding disorders), <i>Hritroga</i> (diseases of heart), <i>Jwara</i> (fever), <i>Vatasrik</i> (gout), <i>Visarpa</i> (herpes) and is <i>Kaphahna</i> , useful for <i>Sukumarapurusha</i> (tender health person)
8	Ka.5/7	The fruits of <i>Kutaja</i> should be collected at appropriate season and should be dried and made into coarse powder for making the preparations in the form of decoction.
9	Ka.5/8	The powder of fruits of <i>Kutaja</i> is made <i>Bhavana</i> (impregnated) with decoction of few other drugs and can be used as <i>Vamana kalpa</i> (recipes for emesis) in case of elimination of <i>Pitta</i> and <i>Kapha dosha</i>
10	Ka.5/9	The powder of <i>Kutaja</i> fruit is done <i>Bhavana</i> (impregnated) with the latex of <i>Arka</i> ( <i>Calotropis gigantea</i> ) for 8 days and should be taken with the decoctions of any of the mentioned drugs and can be used for <i>Vamana karma</i> (emesis)
11	Ka.5/11	The above preparation can also taken with water by mixing it with <i>Sarshapa</i> ( <i>Brassica campestris</i> ), <i>Madhuka</i> ( <i>Madhuca longifolia</i> ) or <i>Lavana</i> (salt) and can be used for <i>Vamana karma</i> (emesis)
12	Ka.5/11.5	The preparation with <i>Kutaja</i> processed with the decoction of few other drugs can be added to <i>Krishara</i> (a preparation of rice and pulses) and can be used for <i>Vamana karma</i> (emesis)
13	Ka.5/12	In total of 18 recipes of <i>Kutaja</i> is explained in the chapter of <i>Vatsaka kalpam</i>
14	Ka.7/61	<i>Kutaja</i> along with few other drugs should be made into fine powder along with <i>Trivrit</i> ( <i>Operculina turpethum</i> ) for making <i>Trivrit kalpa</i> (preparation with <i>Trivrit</i> ) for <i>Virechana karma</i> (Purgation therapy)

**SIDHISTHANA**

SL.No	Reference	Meaning
1	Si.3/40	Seeds of <i>Kutaja</i> is one among the ingredient of <i>Erandamooladi niruha basti</i>
2	Si.9/8	The paste of <i>Kutaja</i> along with few other drugs can be used for the treatment of ailments of urinary bladder afflicted by <i>Vata dosha</i>
3	Si.10/30	<i>Kutaja</i> is along with few other drugs is one among the <i>Basti</i> (enema) preparation which produces <i>Sangrahika</i> (astringent) in action
4	Si.11/8	According to <i>Badisha</i> , <i>Kutaja</i> is considered as the best for <i>Basti</i> (enema) as it does not reduce <i>Bala</i> (strength) but reduces <i>Kapha</i> as well as <i>Pitta</i>
5	Si.11/12	In the context of <i>Basti</i> (enema) the fruits of <i>Kutaja</i> is considered as <i>Pravara</i> (superior) for <i>Hritroga</i> (heart disease)
6	Si.12/16(1)	The fruits of <i>Kutaja</i> is one among the ingredient of <i>Mustadya yapana basti</i>
7	Si.12/16(2)	The fruits of <i>Kutaja</i> is one among the ingredient of <i>Erandamooladya yapana basti</i>
8	Si.12/16(6)	The fruits of <i>kutaja</i> is one among the ingredient of <i>Balaadya yapana</i>



		<i>basti</i>
9	Si.12/18(6)	The fruits of <i>Kutaja</i> is one among the ingredient of <i>Dvipanchamooladya yapana basti</i>

Table No. 4: *Kutaja* mentioned in *Susruta Samhita*.<sup>[10]</sup>**SUTRASTHANA**

SL.No	Reference	Meaning
1	Su.6/32	In the early rainy season, the earth is adorned with <i>Kutaja</i> and few other plants.
2	Su.11/11	The whole plant including roots, fruits, leaves, and branches of <i>Kutaja</i> along with other trees can be used in the preparation of <i>Kshara</i> (Caustics) for external use.
3	Su.38/6	<i>Kutaja</i> is one among <i>Aragwadhadi gana</i>
4	Su.38/27	The seeds of <i>Kutaja</i> is one among <i>Haridradi gana</i>
5	Su.38/31	<i>Kutaja</i> is one among <i>Brihatyadi gana</i>
6	Su.39/3	<i>Kutaja</i> along with few other drugs can be used as emetics
7	Su.43/5	The fruits of <i>Kutaja</i> can be administered with <i>Ksheera</i> (Milk) or <i>Ksheera yavagu</i> (milk and gruel ) or with other yogas mentioned as an emetic
8	Su.46/284	The flowers of <i>Kutaja</i> is <i>Kapha pittahara</i> and cures skin diseases

**CHIKITSASTHANA**

SL.No	Reference	Meaning
1	Chi.4/32	<i>Kutaja</i> is one among the ingredient of <i>Kalyanaka lavana</i>
2	Chi.6/13	<i>Kutaja</i> along with other ingredient in the form of paste can be taken along with butter milk for the management of <i>Arshas</i> (hemorrhoids)
3	Chi.9/10	Paste of <i>Kutaja</i> along with other drugs can be applied in case of <i>Kusta</i> (skin disorders)
4	Chi.9/14	<i>Kutaja</i> along with other drugs can used for bath and for external application in case of <i>Dadru</i> (Lesions of ring worm)
5	Chi.9/35	<i>Kutaja</i> is one among the ingredient of <i>Mahanila ghrta</i>
6	Chi.9/58	<i>Kutaja</i> is one among the ingredient of <i>Mahavajraka taila</i>
7	Chi.11/8	<i>Kutaja</i> along with other ingredients can be used as <i>Kashaya</i> (decoction) for urinary abnormalities
8	Chi.11/9	<i>Kutaja</i> along with other ingredients can be used as paste of decoction of <i>Guduchi</i> ( <i>Tinospora cordifolia</i> ) and <i>Chitraka</i> ( <i>Plumbago zeylanica</i> ) in case of <i>Sarpirmeha</i> (a type of <i>vataja prameha</i> )
9	Chi.12/9	In case of <i>Prameha Pidaka</i> (Boils associated with urinary abnormalities) one should lick the paste of <i>Kutaja</i> along with other ingredients mixed with honey
10	Chi.14/12	<i>Varti</i> (Rectal suppository) made with <i>Kutaja</i> along with other ingredients can be used in case of severe constipation of the patients suffering from <i>Udara</i> (abdominal enlargement)
11	Chi.22/74	<i>Kutaja</i> with other ingredients should be used with cow's urine for the treatment of oral diseases due to <i>Kapha dosha</i>
12	Chi.23/12	Seeds of <i>Kutaja</i> along with other ingredients take with warm water cures generalized swelling
13	Chi.31/5	The <i>Snehas</i> (oil) of <i>Kutaja</i> act as emetics
14	Chi.38/60	The decoction prepared out of <i>Kutaja</i> and other ingredient for <i>Niruhabasti</i> ( decoction enema) cures <i>Kamala</i> (jaundice), <i>Pandu</i> (anemia), <i>Meha</i> (diseases of urinary system) etc.
15	Chi.38/69	The <i>kalka</i> (paste) of <i>kutaja</i> along with other ingredients is added with the decoction for the preparation of <i>Niruhabasti</i> (decoction enema) for the management of <i>Gridrasi</i> (sciatica), <i>Astila</i> (prostatic diseases) etc
16	Chi.38/109	<i>Kutaja</i> is one among the ingredient of <i>Yapana basti</i>

**KALPASTHANA**

SL.No	Reference	Meaning
1	Ka.6/3	<i>Kutaja</i> is one among the ingredient of <i>Ksaragada</i>

**UTTARATANTRA**

SL.No	Reference	Meaning
1	Ut.39/252	<i>Kutaja</i> is one among the ingredient of <i>Patoladi Ghrita</i>
2	Ut.40/38	Seeds of <i>Kutaja</i> along with other ingredients is one among the compound preparation of <i>Atisara</i> (Diarrhoea)
3	Ut.40/43	Seeds of <i>Kutaja</i> along with other ingredients is one among the compound preparation of <i>Atisara</i> (Diarrhoea)
4	Ut.40/44	Seeds of <i>Kutaja</i> along with other ingredients is one among the compound preparation of <i>Atisara</i> (Diarrhoea)
5	Ut.40/61	Seeds of <i>Kutaja</i> along with other ingredients are made decoction to treat <i>Atisara</i> (Diarrhoea) of <i>Pittaja</i> origin
6	Ut.40/63	Seeds of <i>Kutaja</i> along with other ingredients is one among the compound preparation to treat <i>Pittaja Atisara</i> (diarrhoea of <i>Pittaja</i> type)
7	Ut.40/65	Fruits and bark of <i>Kutaja</i> along with other ingredients is one among the compound preparation treat <i>Pittaja atisara</i> (Diarrhoea of <i>Pittaja</i> type)
8	Ut.42/129	<i>Churna</i> (Powder) of seeds of <i>Kutaja</i> along with other ingredients gives instant relief from <i>Kukshi shula</i> (colic)

**Table No. 5: *Kutaja* mentioned in *Asthanga Hridayam*.<sup>[11]</sup>****SUTHRASTHANA**

SL.No	Reference	Meaning
1	Su.10/28	<i>Kutaja</i> is one among <i>Tikta gana</i> (Group of bitter drugs)
2	Su.15/2	<i>Kutaja</i> is one among <i>Chardhana gana</i> (Group of emetics)
3	Su.15/3	<i>Kutaja</i> is one among <i>Niruha gana</i> (Group of drugs for decoction enema)
4	Su.15/33	<i>Kutaja</i> is one among <i>Vatsakadi gana</i>

**CHIKITSASTHANA**

SL.No	Reference	Meaning
1	Chi.1/120	<i>Basti karma</i> (Enema therapy) with <i>Kutaja</i> and other ingredients cures fever
2	Chi.3/134	<i>Kutaja</i> is one among the ingredient of <i>Vasisthadashamooladi rasayana</i>
3	Chi.5/16	<i>Kutaja</i> is one among the ingredient of <i>Jivanthyadi ghrita</i>
4	Chi.8/33	Buttermilk processed with the bark of <i>Kutaja</i> along with other ingredients can be used in case of hemorrhoids, pain in the rectal region, and for the one with mild digestive power
5	Chi.8/102	In case of <i>Kaphaja</i> type of <i>Arshas</i> (hemorrhoids) along with bleeding, the decoction of the bark of <i>Kutaja</i> along with <i>Shundi</i> ( <i>Zingiber officinale</i> ) is beneficial.
6	Chi.8/103	In case of <i>Kaphaja</i> type of <i>Arshas</i> (hemorrhoids) along with bleeding, bark, and fruits of <i>Kutaja</i> along with few other ingredient can be taken with rice washed water
7	Chi.8/104	<i>Leha</i> (Linctus) prepared with the bark and seeds of <i>Kutaja</i> along with the other ingredients cures <i>Rakta atisara</i> (Bleeding type of diarrhoea), <i>Rakta arshas</i> (bleeding type of hemorrhoids) and severe <i>Raktapitta</i> (bleeding disorders) of either passages.
8	Chi.8/108	<i>Leha</i> (Linctus) prepared with the bark of <i>Kutaja</i> along with the other ingredients cures all types of <i>Arshas</i> (hemorrhoids), <i>Grahani</i> (malabsorption syndrome), <i>Swasa</i> (dyspnoea), and <i>Kasa</i> (cough).
9	Chi.8/114	Powder of <i>Kutaja</i> along with other ingredient can be taken with <i>Tandulodaka</i> (rice washed water) in case of hemorrhoids
10	Chi.8/117	The powder of the fruits of <i>Kutaja</i> along with other ingredients can be taken in case of pain associated with intensive bleeding
11	Chi.8/162	For <i>Ardra arshas</i> the bark of <i>Kutaja</i> is considered as the best (hemorrhoids which are moist)
12	Chi.9/7	For the patients suffering from <i>Atisara</i> (diarrhoea) due to the moderate

		aggravation of <i>Doshas</i> , then he should take decoction prepared with <i>Kutaja</i> along with other ingredients.
13	Chi.9/57	The person suffering from <i>Atisara</i> (Diarrhoea) should take <i>Tandulodaka</i> (rice washed water) mixed with <i>Madhu</i> (honey), paste of fruits and bark of <i>Kutaja</i> along with other ingredient.
14	Chi.9/58	The person suffering from <i>Atisara</i> (Diarrhoea) should take <i>Tandulodaka</i> (rice washed water) along with the paste of the seeds of <i>Kutaja</i> and few other ingredients
15	Chi.9/59	The person suffering from <i>Atisara</i> (Diarrhoea) should take <i>Tandulodaka</i> (rice washed water) mixed with <i>Madhu</i> (honey), and the seeds of <i>Kutaja</i> and other drugs
16	Chi.9/60	Decoction prepared out of <i>Kutaja</i> seeds should be taken by the person who eats <i>Rasa</i> (meat soup) to get relief from <i>Jataramaya</i> (disorders of stomach) caused by <i>Pitta dosha</i>
17	Chi.9/62	Powder of <i>Kutaja</i> along with other drugs should be consumed with <i>Tandulodaka</i> (rice washed water) and honey
18	Chi.9/64	Decoction of seeds of <i>Kutaja</i> along few other drugs cures <i>Pakvatisara</i> (a type of diarrhoea)
19	Chi.9/105	Decoction prepared out of <i>Kutaja</i> along with few other ingredients cures <i>Atisara</i> (diarrhoea) of <i>Kaphaja</i> type
20	Chi.10/35	<i>Kutaja</i> is one among the ingredient of <i>Patoladi churna</i>
21	Chi.10/38	The powder of the seeds and bark of <i>Kutaja</i> is taken along with <i>Guda</i> (jaggery) and <i>Sheetaambu</i> (cold water) cures <i>Grahani dosha</i> (Malabsorption syndrome), <i>Gulma</i> (Abdominal lumb), <i>Kamala</i> (Jaundice), <i>Jwara</i> (fever), <i>Pandu</i> (Anemia), <i>Meha</i> (urinary disorders), <i>Aruchi</i> (anorexia) and <i>Atisara</i> (diarrhoea)
22	Chi.10/40	<i>Kutaja</i> is one among the ingredient of <i>Nagaradi churna</i>
23	Chi.19/62	<i>Lepana</i> (anointing) of the paste prepared out of fruits of <i>kutaja</i> along with other ingredients cures <i>Kustha</i> (skin disorders)
24	Chi.21/59	<i>Kutaja</i> is one among the ingredient of <i>Nimbadi taila</i> or <i>Panchatikta ghrita /guggulu</i>

**KALPASTHANA**

SL.No	Reference	Meaning
1	Ka.1/44	The seeds of <i>Kutaja</i> are the best for <i>Sukumara purusha</i> (delicate person), <i>Raktapitta</i> (bleeding disorders), diseases due to <i>Kapha dosha</i> , <i>Jwara</i> (fever), <i>Visarpa</i> (herpes), <i>Hridroga</i> (diseases of heart), <i>Khuda</i> (gout) and <i>Kustha</i> (skin disorders)
2	Ka.1/45	Seeds of <i>Kutaja</i> should be administered for <i>Vamana karma</i> (emetic therapy) along with with the decoction of either of <i>Sarshapa</i> ( <i>Brassica campestris</i> ) or <i>Madhuka</i> ( <i>Madhuca longifolia</i> ), or <i>Lavana</i> (salt) or with <i>Krishara</i> (type of rice) boiled with greengram
3	Ka.1/46	The powder of the seeds of <i>Kutaja</i> is immersed in <i>Arka ksheera</i> (milk of <i>Calotropis gigantea</i> ) for 7 days and can be administered with the decoction of either of <i>Madana</i> ( <i>Randia dumetorum</i> ), <i>Jimutaka</i> ( <i>Luffa echinata</i> ) and few other drugs and can be administered for <i>Vamana karma</i> (emetic therapy)
4	Ka.2/17	The seeds of <i>Kutaja</i> is one among the ingredient of <i>Kayanakaguda</i>
5	Ka.2/25	The seeds of <i>Kutaja</i> along with few other drugs should be administered along with honey is the best as purgative recipe for rainy season
6	Ka.2/29	<i>Kutaja</i> along with few other ingredients can be considered as the best for purgative therapy for <i>Ruksha</i> (dry person) in all season
7	Ka.4/8	The seeds of <i>Kutaja</i> along with few other ingredients can be used for making <i>Basti karma</i> (enema therapy) which is a digestive promoter and act as <i>Lekhana</i> (scraping) also effective pain in <i>Jangoru</i> (thighs), <i>Pada</i> (feet), <i>Trika</i> (sacral region) etc and in few other disorders
8	Ka.4/35	<i>Kutaja</i> is one among the ingredient of <i>Basti</i> (enema therapy) which is beneficial for diseases caused by <i>Kapha</i> , <i>Pandu</i> (anemia) and in few other disorders



## UTTARASTHANA

SL.No	Reference	Meaning
1	Ut.7/19	The bark of <i>Kutaja</i> is one among the ingredient of <i>Mahapanchagavya ghruta</i>
2	Ut.20/14	In case of <i>Pratishyaya</i> (rhinitis) caused by <i>Pitta</i> or <i>Rakta</i> , <i>Kutaja</i> along with few other drugs should be ground in the <i>Bastamutra</i> (goat's urine) and should be instilled in to the nostrils
3	Ut.22/68	Oil prepared with <i>Kutaja</i> and few other drugs can be given for drinking in case of <i>Galaganda</i> (Goitre)
4	Ut.28/38	In case of <i>pitaka</i> (eruption), <i>Sthoulya</i> (obesity), and <i>Bhagandara</i> (fistula in ano), one should take <i>Kutaja</i> with few other drugs in increasing dose by one part in their succeeding order.
5	Ut.34/46	The bark of <i>Kutaja</i> is one among the ingredient of <i>Pushyanuga churna</i>
6	Ut.37/36	The paste of <i>Kutaja</i> along with few other drugs can be applied at the site of scorpion bite

## DISCUSSION

*Kutaja* botanically identified as *Holarrhena antidysenterica* Wall. The drug is known for its *Krimigna karma* (Antimicrobial activity), *Sthambaka karma* (Prevents mobility) *Atisarahara karma* (Anti diarrhoeal activity), *Kandughna karma* (Antipruritics), *Kustaghnakarma* (Anti dermatosis), *Sthanyashodhaka karma* (Galactopurificators), *Rakthapittahara karma* (Anti hemorrhagic), *Arshoghnakarma* (Anti hemorrhoidal), along with other *karmas*. Acharya Charka mentioned *Kutaja* under *Arshoghna* (Anti hemorrhoidal), *Kandughna* (Anti pruritics), and *Sthanyashodhaka* (Galactopurificators) *Mahakashaya* and Acharya Vagbhata under *Chardighna varga* (Anti emetics), which gives the direct therapeutic indication of the drug. Brihatrayi's used *Kutaja* are mainly in the treatment of *Arshas* (hemorrhoids), *Rakthapitta* (hemorrhagic disorders), *Atisara* (diarrhoea), *Kusta* (skin disorders), *Krimiroga* (worm infestation). The drug is also used in the cases of *Santhaparnajanya vyadhi* (diseases caused by over nutrition), *Sthanyadushti* (vitiation of breast milk), *Jwara* (fever), *Urusthamba* (spasticity of the thighs), *Prameha* (urinary disorders) etc, as one among the many ingredients. *Kutaja* posses *Tikta Kashaya Rasa*, *Laghu Ruksh Guna*, *Katu Vipaka* and *Sheeta Veerya*.

## Probable mode of action

**Rasa:** *Tikta Kashaya Rasa* [12,13]

- The *Tikta rasa* has *Krimighna* (worm infestation), *Kandughna* (anti pruritus), *Jwaraghna* (antipyretic), *deepana* (Enhances digestion), *Pachana* (aids in digestive processes), *Sthanyashodhana* (galactopurificators), *shoshana* (dryness) of *Kleda* (moisture), *Meda* (fat tissues) etc *karma* along with many other *karma* (activity). So the drug by the virtue of its *Tiktha rasa* helps in the disorders like the *Krimi roga* (infestation disorders), *Arshas* (hemorrhoids), *Atisara* (diarrhoea), *Sthanyadusti* (vitiation of breast milk), *Prameha* (urinary disorders) etc.
- The *Kashaya rasa* is *Sangrahi* (astringent), *ropana* (wound healing), *Rakthapitta prashamana* (bleeding disorders), *Shareera kleda*

*shoshana* (causes dryness of fluid elements). Hence help in *Atisara* (diarrhea), *Chardhi* (emesis), *Vrana* (wound), *Arshas* (hemorrhoids), *Rakthapitta* (bleeding disorder), *Prameha* (urinary disorders) etc.

**Guna:** *Laghu Ruksha guna* [14,15]

- The *Laghu guna* is *Kaphahara*, causes *Lekhana* (scrapping) *Ropana* (healing) *Pathya* (suitable) *Langhana* (lightness) *Sheegrapaki* (easily digestable).
- The main *Karma* of *Ruksha guna* is *Shoshana* (dryness), *Sthambana* (astringent), *Malashoshaka* (constipation). *Ruksha guna* is also *Kaphahara*.
- Hence both these *gunas* also helps in achieving the therapeutic efficacy of the drug.

**Veerya:** *Sheeta veerya* [16,17]

- Sheeta veerya* as *Prahladana* (refreshing), *Vishyandana* (Flowing), *Sthirakarana* (Steadiness), *Prasadana* (Calmness), *Vamana* (Induce vomiting), *Kledana* (Moistening), *Jivana* (Enlivening), *Sthambana* (Astringent) and *Rakthasprasadaka* (Good for blood) *Karma* which helps in attaining the therapeutic efficacy of the drug.

**Doshakarma:** *Pittakapha shamaka*

*Kutaja* is *Pitta shamaka* due to its *Sheeta veerya*, *Kashaya Tiktha rasa*, *Rukshaguna* and is *Kapha shamaka* because of its *Katu vipaka*, *Kashaya Tiktha rasa*, and *Laghu Ruksha guna*.

Also various research study including clinical study has been done to prove its Antidiabetic activity [18,19,20,21,22,23,24], Antihyperlipidemic activity [25], Anticancerous activity [26], Antimalarial activity [27], Antidiarrhoeal activity [28], Antibacterial activity [29], Antiurolithic activity [30], Antioxidant activity [31], Safety and Toxicity [32,33,34,35,36,37], Also studies showing the effect of *Kutaja* on amebiasis and giardiasis [38], Bleeding piles [39] etc.

## CONCLUSION

Kutaja is well known for its *Krimigna Sthambaka Kustaghna, Arshoghna* etc karma and its beneficial in various disorders like *Atisara, Arshas, Rakthapitta Prameha* etc.

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