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REVIEW ARTICLE

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Therapeutic use of Vidanga on Krimiroga - A Literary **Review**

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ABSTRACT

'Krimi' is a short name representing vast term called "worms" which may grow inside or outside the human body. In today's fast going world we all use fast food, street food, half cooked food and readymade food for saving time. Our children are also very fond of these kinds of foods as their day starts with Pizza & ends with Burger. Due to this type of food intake which is hard to digest in time, we people prepare a good medium for intestinal worm infestation. Due to various reason including bad food habits 96% of peoples nowadays are affected with a Krimiroga (Udar Krimi). This is very common among children so it is very necessary to have cheap and easily available medicine to get rid of it. And if this medicine would have natural composition & still have high efficacy, then it would be better. One of the herbal remedy we are interested here is vidanga. Embelia ribes known as Vidanga has sure shot therapeutic value in treating Krimiroga due to its chemical constituent. This review is going to highlight the overall information in this short section.

Key words: Vidanga, Embelia ribes, Krimiroga, worm

INTRODUCTION

Modern science has their own kind of division mainly in intestinal worms. (1) Flatworms (2) Roundworms (3) Hookworms (4) Pinworms (5) Whipworms

Herbal preparations & Ayurveda are gaining popularity day by day on world level due to its lesser side effects and higher efficacy. Embelia ribes, a shrub widely distributed throughout India, best variety found at an altitude of 1500 m, in hilly areas and commonly known as false black pepper. It contains 'Embelin' as an active

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constituent. So, it shows its activity like anti-bacterial, antifertility, antiprotozoal, antifungal, analgesic, antiinflammatory, antioxidant, anthelminthic, antidiabetic, anticonvulsant, anti-cancer, antihyperlipidemic & molluscicidal.

Taxonomical Classification^[1]

Kingdom Plantae

Phylum Angiosperms

Order **Ericales**

Family Myrsinaceae

Genus Embelia

Species

Kula - Vidanga Kula

Gana^[2]

Charaka : Krimighna, Kusthaghna, Triptighna

Sushruta : Sursadi, Pippalyadi

Bhav Prakash: Trimada

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Synonyms^[3]

Krimighna, Chitra Tandula, Amogha, Vella, Tandula, Jantuhantri, Krimishatru, Krimijit, Kitari, Krimiripu, Krimihar

Etymology (Nirukti)

Vidanga

वीडती भीनतती इति विडंगम।

It destroys or does Bhedan of Rogas.

वीडती भीनतती विह्न मांद्यम शूलाधमान विबन्ध आदि च इति वा विडंग:।

It destroys diseases like *Agnimandya, Shula, Adhman, Vibandha* etc.

Vella

वेललती चलति उदर कोष्ठे रोगवारणार्थम इति वेललम ।

In *Udar Kostha, Vidanga* through its *Guna* destroys *Krimi* from every corner of the G.I. tract.

Amogha

न मोघा इति ।

It never fails. It does its Kriminashan work successfully.

Tandula

तन्तु कृमि सूत्र लाती इति ।

It pulled out Krimi etc.

तडयते आहनयते उपयोग अर्थीभि: इति वा ।

Users of Vidanga grind it &pestle it.

Krimighna

कृमिन घनन्ति इति ।

It destroys Krimi.

Botanical Description^[4]

Its leaves are simple, alternate, ovate and sharp at both the ends. Length of leaves is 3 inch long and 1.5 inch broad. It has white colour pentamerous flowers & globose fruits, 3-4 mm diameter, smooth, succulent, black when ripe, like a peppercorn when dried. Outer covering of fruits is fragile and from inside seeds are spotted. Roots of this medicinal herb are brownish grey in colour.

Distribution^[4]

The herb is found in areas up to the height of 1500 mts. Vidanga found in the hilly areas of India like lower and central Himalayas down to Konkan, Deccan, Western Ghats and South India. It is found throughout India.

Varieties

At present *Embelia Tsjeriam* – Cottom - (R.et.S. A.Dc) - Embelia Robusta (C.B Clarke) is supplied as *Vidanga* at most of the places in India.

Major Chemical Constituents

Embelin, Christembine, Homoembelin, Vilangine, Quercitol etc.

Properties^[5]

Rasa : Katu (Vayu+Agni), Kashaya (Vayu+Prithvi)

Guna : Laghu, Ruksha, Tikshna

Virya : Usna

Vipaka : Katu

Karma : Kaphavata Shamak, Vishaghna, Krimighna,

Dipana

Prabhav: Krimighna

विडङ्गज्योतिष्मतीफलतैलानि तीक्ष्णानि लघून्यूष्णवीर्याणि कटूनि

कटुविपाकानि सराण्यनिलकफकृमिकुष्ठप्रमेहशिरोरोगापहराणि चे ति ।। (Su.Su.45/115)

विडंग कटु तीक्ष्णोष्ण रुक्ष विह्नकर लघ्।

शूल आद्यमान उदरश्लेष्मकृमिवातविबंधनुत ।। (Bhav Prakash)

- Dhanwantri Nighantu, Shodhal Nighantu, Kaideva Nighantu and Raj Nighantu have also references for it.
- विडङ्गं क्रिमिघ्नानां || (Cha.Su.25/40)
- Charak delineated Vidanga as the best among the Krimighna Dravyas.
- According to Sushrut Samhita, Kalpa Sthan, Chapter no.5, Shloka no. 84-86, It is stated that in Sarpa Visha Chikitsa, Vidanga can be used as Ekasar Yoga which can destroy Sarpa Visha.

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Indications^[6]

Krimi, Udar, Adhman, Shula, Kustha

Therapeutic Uses^[6]

- 1. Kamala Vidanga along with Pippali is used as Nasya & Anjana.
- 2. Ardhavabhedak Nasya with Vidanga & Krishna Tila is useful.
- 3. *Visha Roga* Root paste of *Vidanga* is taken with Rice water.
- **4.** *Krimija Hridroga Vidanga* & *Kustha* are to be given with cow's urine.

Nutraceutical Values^[7]

- Anti-cancer activity: Embedelin is used to diminish tumor size and prevent the movement of serum enzymes including acid phosphatase, glutamyltransferase, lactate dehydrogenase, aldose, and others from rising in rats with experimental fibrosarcoma. Embelin affects glucose and amino acid metabolism in tumorbearing mice.
- 2. Anticonvulsant activity: Embelin, given intraperitoneally at doses of 2.5, 5, and 10 mg/kg body weight, reduces seizures caused by electroshock and pentylenetetrazol in a dose-dependent manner. A significant reduction in motility demonstrated CNS depressive impact. According to the findings, embelin exhibits anticonvulsant properties in both grand mal and petit mal epilepsy.
- 3. Antioxidant property: The degrees of pancreatic superoxide dismutase, catalase, and glutathione in streptozotocin (at measurements of 40 mg/kg, intravenously as a solitary portion) caused diabetic rodents are decreased when a fluid concentrate of *Embelia ribes* is given orally at dosages of 100 mg/kg and 200 mg/kg body weight. In streptozotocin-prompted diabetic rodents, its cancer prevention agent movement shields the pancreatic cells from misfortune.

- 4. Analgesic activity: Embelin is a centrally acting non-narcotic analgesic that may be taken orally. It has a distinct core site of action than naloxone and is not antagonistic to it. Because of its great oral effectiveness, therapeutic index, and lack of abstinence syndrome, it is more tolerable than morphine. Naloxone is known to block the action of narcotic analgesics mediated by -receptors.
- 5. Anti-spermatogenic activity: For 15 or 30 days, male albino rats were given daily subcutaneous injections of Embelia at a dosage of 20 mg/kg body weight, which inhibited:
- a) epididymal motile sperm count,
- b) Indicators of fertility, such as pregnancy success.
- c) The activity of glycolysis and energy metabolism enzymes. These modifications are reversible.

When embelin is added to epididymal sperm suspensions, it inhibits sperm motility and glucose metabolism enzyme activity in a dose- and duration-dependent manner.

Embelia ribes extract and its uses^[7]

SN	Extracts	Uses
1.	Methanolic extract	Modulatory action of acetylcholinesterase
2.	Aqueous- Ethanol extract	Anthelminthic
3.	Methanol extract	Avoid pregnancy 75% of the time
4.	Ethanol extract Butanol extract	Hepatoprotective, Antifertility Uterine weight levels Antifertility
5.	Butanol extract Benzene extract	Antifertility Antifertility 51%
6.	Benzene extract n-Hexane extract	Antifertility 51% Anthelminthic
7.	Petroleum ether extract	Tape worm (but not round/hook) Prevent pregnancy 75%

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8.	Aqueous - Ethanol extract	No Antifertility,37% Anthelminthic
9.	Aqueous - Ethanol extract Fresh juice	No Antifertility,37% Anthelminthic Decongestant, soothing and cathartic
10.	Hexane extract	Antifertility
11.	Fresh juice	Decongestant, soothing and cathartic
12.	Powdered fruit	Antifertility
13.	Milk extract	Digestive & upper respiratory infection
14.	Aqueous extract	Hypolipidemic Anthelminthic

Part Used: Seed, Roots

Dosage

Powder 3-5 gm

Root paste 10-20 gm

Vishishta Yoga

Vidangadi Loha, Vidangarishta, Vidanga Taila, Trimadasav

Different synonyms of *Embelia ribes* (*Vidanga*) In different *Samhitas*

Synonyms	Charak	Sushrut	Astanga Hridaya	Astanga Sangraha
Vidanga	✓	✓	✓	✓
Krimighna	✓	✓	✓	✓
Amogha	✓	Х	Х	Х
Krimishatru	х	✓	Х	Х
Krimijit	х	Х	✓	Х
Kitari	х	✓	Х	Х
Krimiripu	х	Х	✓	Х
Jantughana	х	х	✓	Х
Krimihar	✓	х	х	Х

Kriminut	х	Х	✓	Х
Krimihat	х	Х	✓	Х

Description of *Embelia ribes* (*Vidanga*) In different *Samhita*

Karma	Charak	Sushrut	Astanga Hridaya	Astanga Sangraha
Krimighna	√	✓	✓	✓
Kusthaghna	✓	√	✓	✓
Arshoghna	✓	√	✓	✓
Dipan	✓	√	✓	✓
Pachan	√	✓	✓	✓
Triptighna	√	√	✓	✓
Rasayan	√	✓	✓	✓
Virechan	√	✓	✓	✓
Sirovirechan	√	√	✓	✓
Vranshodhan	√	√	✓	✓
Kaphahar	✓	√	✓	✓
Gulma	√	√	✓	✓
Medya	х	√	Х	х
Virechanopag	х	х	√	х
Sneha Virechan	х	х	х	х
Vamanopag	х	х	✓	х
Sirovirechanopag	√	х	х	х
Jwarhar	Х	х	х	✓
Pratishaya	х	√	х	х
Shwas-Kasa	Х	√	✓	х
Balroga	х	√	х	х
Halimaka	х	х	✓	х

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Medohar	х	х	х	✓
Plihodar	х	х	✓	х

DISCUSSION

Krimi Types, Details & Chikitsa^[8]

Source: Charak Samhita, Vimansthan, 7th Chapter, 20 types of Vaikarik Krimi are described.

Bahya Krimi

Krimi	Origin	Cause	Shape	Colour	Effect
Malaja (2) Yuka Pipilika	Hairs Beards Mousta che Eyelash es etc.	Mrija Varjan	Anu Tilakriti Bahupad a	Shukla Krishna	Kandu Kotha Pidaka

Abhyantar Krimi

Krimi	Origin	Cause	Shape	Colour	Effect
Raktaja (6) Keshad Lomad Lomadwe ep Sauras Udumbar Jantumat a	Raktav ahi Dhama ni (Blood Vessels)	Kusth Saman	Anu Vritta Apada	Tamra	Kesh, Smasru, Loma, Pakshm a Dhwans
Kaphaja (7) Antrada Udarada Hridaycha ra Churu Darbhapu shpa Saugandhi k,	Amash ay (Muc us)	Kshira, Guda, Tila, Pistann a, Klinna Sankirn a Bhojan	Prithu Bradh ma Gandu pada	Sweta	Hrillasa, Kshavat hu, Anaha, Karshy Jwar, Aruchi

Mahagud a					
Purishaja (5) Kakeruka Makeruka Leliha Sausurada	Pakwas hay (Faeces)	Kshira, Guda, Tila, Pistann a, Klinna Sankirn a Bhojan	Suksh ma Vritta Urnan shu	Syava Nila Harita Peeta	Purisbh eda (Diarrh ea) Lomaha rsha, G uda Kandu

Line of treatment

1. Apakarshan (To expel out)

Sastra Yukta (By Hand)

Asastra Yukta

- (a) Sirovirechan
- (b) Vaman
- (c) Virechan
- (d) Asthapan (except Anuvasan)

Anuvasan Basti if given then only by Vidanga Taila.

- Prakriti Vighata (change the media by administering Katu, Tikta, Kashaya, Ushna Dravya)
- 3. Nidan Parivarjan (avoiding causes)

तत्र सर्वक्रिमीणामपकर्षणमेवादितः कार्यं, ततः प्रकृतिविधातः, अनन्तरं निदानोक्तानां भावानामनुपसेवनमिति।। (Cha.Vi.7/14)

Uses in today's world

As Yoga Formulations : 1) Krimikuthar Rasa 2) Vidangasav 3) Vidanga Churna 4) Krimi Mudgar Rasa

As Single Herb: *Vidanga* is also solely used to destroy *Krimi*.

Medicine: Vidanga Beej Churna

Route of Administration: Oral

Dose: 3 gm BD (Adult Dose), 1.5 gm BD (Child Dose)

Anupana: Guda (for attracting Krimis)

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CONCLUSION

Vidanga is Katu, Kashay Rasa dominant & has Ushna Virya. Katu, Kashay Rasa is necessary for Kriminashan i.e., which destroys Krimi. Due to its Prabhav property Vidanga kills Krimi. Different clinical assessment has also proved it to be highly effective. So, Vidanga should be used for deworming.

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