

REVIEW ON THE ANCIENT DRUG APAMARGA – (ACHYRANTHES ASPERA)**Dr. Shristi Balbhadra^{*1}, Dr. Anshuman Rajnala² and Shubham Balbhadra³**

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ABSTRACT

The medical science has developed from ancient civilization, which used parts of plants, animals, metals and minerals to connect healings portions, to alleviate pain, control suffering and counteract diseases. It has progressed from an era of empiricism to the present stage of specific therapeutic agents. In India our ancestors possessed great knowledge of herbs and medicinal plants, among that Apamarga (*Achyranthes aspera*) is grown everywhere like a weed and hence easily available also possess various medicinal properties. It's not only used as single drug but also, can be used in different dosage forms and useful in wide range of therapeutic applications. Hence in this paper the available literature about Botanical, Chemical, and Ayurvedic

aspect of drug Apamarga is discussed.

KEYWORDS: *Apamarga, Ayurvedic, Botanical, Chemical, Therapeutic.*

INTRODUCTION

Apamarga (*Achyranthes aspera*) is a species of plant in the *Amaranthaceae* family.^[1] It has synonyms like Adhahshalya, Apamarga, Kharamanjari, Kihini Mayuraka, Sikhari, Saikharika, Pratyakpuspi, Markata.^[1,2] It is distributed throughout the tropical world can be found in many places growing as a common weed. It is widely used as medicinal purposes

especially as diuretics and even used for obstetrics and gynecology purpose and it is having symptomatic healing effect in malaria fever.^[3]

CHEMICAL CONSTITUENTS

Achyranthes aspera contains Triterpenoid saponins which possess oleanolic acid.^[3,4] as the aglycone. Ecdysterone, (an insect moulting hormone, and long chain alcohols are also found). Medicinally important chemicals like Achyranthine, Betaine, Pentatriaontane, 6-pentatriacontanone, hexatriacontane and tritriacontane are also present.

| | | |
|-------------------|---|--|
| PARTS USED | : | Seed, Leaf, Roots, whole plant or Panchanga. |
| DOSE | : | Swarasa 10 to 20 ml. Kshara 1/2 to 2 Grams. |

Table 1: Properties of Apamarga.^[2,3]

| Properties | Apamarga properties |
|------------|---|
| Rasa | Katu, Tikta |
| Guna | Laghu, Ruksha, Tikshna |
| Virya | Ushna |
| Vipaka | Katu |
| Karma | Amaghana, Dipana, Mutrala, Pachana, Lekhana |

Table 2: Table showing Apamarga Regional names.^[2,3,5]

| | | |
|----|-----------|---|
| 1 | Sanskrit | Adhashalya, Kharamanjari, Mayuraka, Markati, Durgraha, Pratyakpushpi, Shikhari, Aghata, Kinihi. |
| 2 | English | Prickly-chaff flower, Rough chaff tree. |
| 3 | Gujarati | Aghedo, Angheda, safed aghedo, Anghedo |
| 4 | Hindi | Chirchira, Chirchitta, Latjira, Chirachiri, Chichari, Lal Chirchira. |
| 5 | Bengal | Apang, Chirchiti. Kannad.: Utranigida, Uttarane. |
| 6 | Malayalam | Kadaladi, VankataLati, Valiyakataladi |
| 7 | Marathi | Aghada, Aghara. |
| 8 | Punjabi | Kutri, Chichra, Puthkanda |
| 9 | Tamil | Katalati, Naayurivi, Chirukadaladi. |
| 10 | Telugu | Apamargamu, Uttareeni. |
| 11 | Oriya | Apamaranga, Apamargo |
| 12 | Arabic | Atkumah. |
| 13 | Assam | Apam, Chick-Kairek |
| 14 | Unani | Chirchita |

MATERIALS AND METHODS

The materials are collected from the various classical books of ayurveda and represented in the tabulation.

HISTORICAL REVIEW

Vedas: In Rigveda no reference is available about Apamarga.

Table 3: Explanation of Apamarga in vedas.

| S. No. | Name | Explanation |
|--------|--------------------|--|
| 1 | Yujurveda | Quoted its Saktu (powder) for antimicrobial (Rakshoghna) property |
| 2 | Atharvaveda | Extensively quoted Apamarga and according to the etymology provided by Sayana, this plant drives away the vitiated doshas from the body, hence the name Apamarga. Properties Sahasravirya, Krimighna, Rakshoghna, Rasayana, Arshoghna, Kshudha-trishna hara, Vishaghna, and Ojovardhana |

Samhita period: In Samhitas, Apamarga is incorporated in many formulations for the treatment of various diseases. In this Samhita, the description of Apamarga is found in many chapters.

Table 4: Explanation of Apamarga in samhita.

| S.no | Name (samhita/sthana) | Chapter | Explanation |
|------|---------------------------------------|--|---|
| 1 | Charaka samhita | | |
| | Sutrasthana ^[6] | 1 st (Dirghajivitiya) | Included among nineteen fruit drugs for the “shirovirechana” use |
| | | 2 nd (Apamarga tanduliya) | Apamarga- shirovirechana, mahakashaya, vamanopaga mahakasaya, krimighna mahakasaya |
| | | 4 th (Sadavirechana shatasritiya adhyaya) | Mutravirechaniya mahakashaya |
| | chikitsa sthana ^[7] | 7 th (kustha chikitsa) | Apamarga is mentioned to be used in Vataj and Kaphaj Kustha as an external application |
| | | 9 th (Unmada chikitsa) | Apamargadi varti is indicated. In the treatment of Apasmara Apamarga is ingredient in “Mahapanchagavya ghrita” and “Triphaladi taila” |
| | | 13 th (Udara chikitsa) | Taila medicated with ksharajala of Apamarga etc. is said to be used in Parshwa shoola |
| | | 18 th (kasa) | Apamarga in the treatment of Kasa and Hikka-Swasa |
| 2 | Sushruta Samhita^[8] | | |
| | Sutrasthana | 11 th (Kshara paka vidhi) | Apamarga kshara preparation is explained |
| | | 38 th (Dravya Samgrahaniya Adhyaya) | Mentioned in Varunadi gana, Virvartadi gana and Arkadi gana |
| | | 39 th (Samshodhan Samsamaniya) | Apamarga is also accepted as Adhobhaga doshahara and Shirovirechaka |

| | | | |
|---|--|--|--|
| | | 42 nd (Rasa vishesa vigyanika) | Mentioned under Tikta varga Used in the treatment of Ashamri, Udararoga, Pleehodar, Krimiroga, Shwasa, Kasa, Mukharoga etc. in respective chapters of Sushruta Samhita |
| 3 | Kashyapa Samhita ^[9] | | |
| | chikitsa sthana | 7 th (Rajyakshma chikitsa) | Treatment of Rajyakshma, Apamarga is mentioned along with other drugs |
| | Siddhi sthana | 3 rd (vamana virechniya siddhi) | Word Apamarga tanduliya is coated as a Vamana- Virechnaniya dravya |
| 4 | Astanga Samgraha ^[10] | | |
| | chikitsa sthana | 5 th (Kshata- Kshaya rogadhikara) 6 th (Kasa-roga) 7 th (Swasa –Hikka roga) 13 th (Mutraghat chikitsa) 16 th (Gulma chikitsa) 11 th (Udara chikitsa) | Indications of Apamarga are given Indications of Apamarga are given |
| | Uttar sthana | 16 th (Timira pratishedhya) | Apamarga is mentioned along with Talisha patra, patha to prepare medicated ghrita to be used in Timira roga. |
| 5 | Astanga Hridaya ^[11] | | |
| | Sutra sthan | 15 th (shodhnadigana sangraha adhyaye) | Apamarga is included in uttam shodhanadigana |
| | | 30 th (kshara agni karma vidhi adhyaya) | Included with the drugs from which Kshara is prepared for ksharagni karma vidhi |
| | Chikitsa sthana | 8 th (Arsha chikitsa) 11 th (Mutra gatha chikitsa) 20 th (switra krimi chikitsa) | Formulations of Apamarga are described for the treatment of Arsha, Mutraghat, switra, kustha, krimi etc. |
| | Uttar tantra | 7 th (Apasmara pratishedha adhyaye) | Apamarga is used in the preparation of Panchagavya ghrita |
| 6 | Sharangadhara samhita ^[12] | | |
| | Madhyama khanda | 11 th (Dhatu shodhana marana kalpana) | Kshara preparation by Apamarga is explained |

Table 5: Explanation of Apamarga in Nighantu.

| s.no | Name | Explanation |
|------|---|---|
| 1 | Dhanvantari Nighantu ^[13] | Two types of Apamarga are mentioned - Raktapushpa and Swetapushpa Apamarga. Synonyms, actions and uses of both varieties are also mentioned separately. |
| 2 | Sodhala Nighantu ^[2] | Fruit of Apamarga is mentioned to be used in Krimi, Shiroroga and Pinus. Synonyms of Apamarga are described in “Guduchyadi varga”. In GunaSamgraha guna of Apamarga are specified. |

| | | |
|---|---|--|
| 3 | Madanapala Nighantu ^[14] | Sweta and Rakta varieties of Apamarga are mentioned along with synonyms and properties |
| 4 | Kaiyadeva Nighantu ^[15] | Apamarga has been classified in three varieties - Sweta, Rakta and Jala-Apamarga with their synonyms and properties in Aushadhiya varga. The variety Jala- Apamarga is described only in this nighantu |
| 5 | Bhavaprakah Nighantu ^[16] | Apamarga is included in Guduchyadi varga among 23 varga classified by Bhavaprakash. According to him Rakta- Apamarga is inferior to Sweta- Apamarga in qualities. Both varieties are differentiated from each other on the basis of seed and colour of stem. |
| 6 | Raj Nighantu ^[17] | Vernacular names of drugs are quoted. In this context 23 names of Apamarga are mentioned. |
| 7 | Rajvallabh Nighantu ^[14] | Apamarga is said to be teekshna, kledajanaka .. |
| 8 | Shaligram Nighantu ^[14] | synonyms, vernacular names, and properties of Apamarga |

Table 6: Explanation of Apamarga in Rasashastra books.

| s.no | Name | Explanation |
|------|--|---|
| 1 | Rasatarangini ^[18] | kshara preparations from many drugs in which Apamarga is one of them. Synonyms of Apamarga, properties, uses etc. apamarga kshara in- ksharashtaka is mentioned |
| 2 | Ayurveda prakasha ^[19] | Apamarga kshara preparation |
| 3 | Rasaratnasammuchara ^[20] | Explanation of kshara prepared by Apamarga panchanga, apamarga kshara – kshara panchaka, In vanga jarana – use of Apamarga churna |
| 4 | Ayurveda sarasangraha ^[21] | Apamarga kshara preparation is explained |

BOTANICAL DESCRIPTION^[5,18]

Achyranthus aspera Linn. is an erect or semi-erect much branched diffuse or suffrutescent biennial shrub growing half to one meter in height with terete or blunty quadrangular striate pubescent branches thickened just above the nodes, bearing simple, opposite, orbicular-obovate or elliptic, usually obtuse slightly thick ash green velvety tomentose herbaceous leaves, up to 10cm in length and 7.5cm in width and long slender terminal spikes reaching up to 45cm in length of small greenish deflexed flowers and easily disarticulating fruits that by means of small spiny bracteoles are capable of securely adhering to fur of animals or clothing.

DISTRIBUTION^[5,18]

Throughout India, up to an attitude of 2100m and in the south Andaman Island, commonly found like a weed on waysides and waste places.

VARIETIES OF APAMARGA^[15]

Achyranthus aspera Linn → Sweta Apamarga

Achyranthus bidentata: → Rakta Apamarga

Achyranthus argentea: It differs from the typical variety only in having the leaves silvery silky beneath.

Achyranthus Porphyristachya: This is a distinct variety and differs from the typical variety (Much longer up to 2m tall, Leaves 7-25cm long, broadly elliptic, elliptic-lanceolate or lanceolate, acuminate, glabrous or pubescent, membranous. The flower and perianths are slightly larger in size. Spikes much longer with more slender hairs)

DISCUSSION AND CONCLUSION

The word 'Apamarga' (*Achyranthus aspera*) itself mean the plant which acts as a hindrance to passers.^[23] It has been mentioned abundantly in the classical literature.^[2] It is the one amongst the main group of eight Kshara. Historical review suggested that references of Apamarga are available from Vedic period i.e. in Yajurveda, Saktu (Powder) of Apamarga was used for antimicrobial property. In Samhitas.^[6,7,8,9] description of Apamarga is found in many chapters and almost all the Nighantus have mentioned about the plant. Kaivadeya Nighantu has classified Apamarga in three varieties i.e. Sweta, Rakta and Jala.^[15] Apamarga. Sweta and Rakta varieties are *Achyranthus aspera* Linn and *Achyranthus bidentata* Blume, respectively.

Apamarga has katu, tikta rasa, Laghu, Ruksha, Sara, Tikshna guna, Usna virya, Katu vipaka. It is Amaghana, Dipana, Mutrala, Pachan as well as Kapha - pitta samsodhaka and Kapha vata samaka.^[2,13,14] It contains oleanolic acid & Medicinally important chemicals like Achyranthine, Betaine, Pentatriaontane, 6-pentatriacontanone, hexatriacontane and tritriacontane.

Also, it is used as one of the ingredient in the preparation of Apamargadivati, Kaphaketurasa, Agnimukharasa, Apamarga taila, Apamarga kshara, Agastaya haritaki rasayana^[18] etc, Hence it can be considered that the plant Apamarga has very good medicinal property.

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