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# "REVIEW OF DRUG - APAMARGA PAANEEYA KSHARA"

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### Abstract:

There is a global demand for natural plant-based products for various health problems. Kshara is the word used in Ayurveda for those chemicals which are 'Alkali according to chemistry and are 'Caustic according to function.

Then one drona ashes, should be dissolved in six drona of water & be filtered twenty one times, with the help of clean linen. Then filtered should be kept in a large vessel over a fire and boiledby gently agitating with a ladle till it remains one fourth and this prepared part is called Paniyakshara.

Keywords: Kshara, 'Alkali, Paniyakshara

#### **INTRODUCTION**

There is a global demand for natural plant-based products for various health problems. Here is a brief overview regarding Ksharakalpana as we have used PaneeyaKshara for the study

# General Consideration of Kshara:

Kshara is the word used in Ayurveda for those chemicals which are 'Alkali according to chemistry and are 'Caustic according to function.

Kshara is useful for Chhedan, Bhedan, Lekhan etc. Being Tridoshaghna, it is more potent and important than any Shashtra and Anushastra.

Kshara. Above two are special properties of Kshara which indicates corrosive action of

In other words, characteristic of 'Kshanan' or 'Ksharan', literally means destruction of fleshy mass either healthy or unhealthy. Kshara is one which scrapes the abnormal tissue and destroys it after dissolving it because of its corrosive action. Kshar is mainly prepared by trees and herbs which contains and Apamarga is one of them.

These drugs contain mainly

- Sodium carbonate
- Potassium carbonate

- Calcium oxide
- Magnesium oxide
- Silica

The ash of such plants is converted into "Ksharodak" which is nothing but process of lixiviation and formation of Lye. During preparation of Ksharodak some substance such as silica are insoluble in water and are separated away as precipitate.

The corrosive property of Kshar depends on molecule of hydroxide. If quantity of hydroxide is more, corrosive action is directly proportional to it.

#### **OH** Corrosive action

Another important step which is told by Sushruta is keeping the Ksharodak in closed iron pot. If it is not kept in such closed container it will have free contact with air and hydroxide will convertinto carbonate as below.

$$2NaOH + CO_2 \rightarrow Na2CO3 + H_2O$$

This ultimately reduces the corrosive action of Kshara.

Method of drug collection and preparation of Apamarga paniya kshara

Acharya Sushruta has mentioned a whole chapter for the preparation (Paka) and method of administration (Vidhi) of Kshara in his Sushrut Samhita.

A Physician wishing to prepare Kshara should first purify his body and mind and observe a faston a auspicious day during Uttama season(summer). Then full grown Apamarga of middle age should be selected from well area. The physician should cut the plant into small pieces and put them and burn them to ashes with the lighted faggots of tilnala. Then after when the fire has fairly burnt, the ashes of the plant and sudhapasan should be separately collected and stored.

Then one drona ashes, should be dissolved in six drona of water & be filtered twenty one times, with the help of clean linen. Then filtered should be kept in a large vessel over a fire and boiledby gently agitating with a ladle till it remains one fourth and this prepared part is called Paniyakshara.

# Preparation of kshara

The panchangas of KshiriVruksha were collected, dried up and made into small pieces. And sudha was added then these are burnt. After burning, ash was collected, mixed with six times of water, it is known as Ksharodak, kept for a fortnight. In morning the filtrate and residual part was separated the filtrate is kept on mandagni and continuously stirred well until it

remains one forth. The prepared product was preserved and that is paniyakshara.

# **Classification of Kshara**

1.Pratisarneeya -PrateesarniyaKshara is used in for external application

2.PaneeyaKshara is used systemically i.e. for internal use Paneeya

Paniyakshara can be used in

Gara, Gulma, Udar, Arochak, Anaha "Sharkara, Krumi, Visha, Arsha, Agnisang, Ajirna, Ashmari, Abhyantar

Vidradhi,

# Genaral properties of Kshara:

Rasa :- Katu ViryaUshna

Varma - Shukla

Guna - Saumaya, Tikshna, Aganeya Doshaghanata: Tridoshghanta.

VataVatashaman because of Ushna una Pitta Pittashaman by Prabhav

Kapha: Kaphashamak

Karma :- Dahan, Pachan, Darana, Vilayan, Shodahan, Ropana, Shoshana, Stumbha, Lekhane. Dhatu :- Rakta Pitta Prakopak

Mala &Mutra:-Malanuloman, Mutral Sweda :- Swedajanan

Qualities of "Kshara":

Qualities Sushta Vagbhatta

1)NatiTikshna + +

2) NatiMrudu +	+
3) Nati Shukla +	+
4) Slakshnata +	+
5) Pichchila +	+
6) Avishyanda +	+
7)Shighrakarita +	+
8) Shiva +	1
9) Shikhari -	+
10) Sukhanirvapya -	+
11) AlpaRakta -	+

# Disqualities of Kshara:

Disqualities	Sushruta	Vagbhatta
1)AtiMruduta	+	+
2)AtiUshnata	+	+
3)AtiSwetata	+	+
4)AtiTiksha <mark>nata</mark>	+	+
5)AtiPichchilata	+	+
6)AtiVisarpita	+	+
7)AtiSan <mark>drat</mark> a	+	+
8) Apakvata	+	+
9)HinaDravyata	MIER	N <sub>A</sub> IIUN <i>A</i>
10)AtiTanu	IDISC	IPLINAR

# **Chemistry of Kshara**

As already stated, Kshar is "Alkali" chemically and "Caustic" functionally. In Ayurveda Kshar is considered as

white in colour. In modern chemistry silver nitrate is an alkali which is white in colour.

# **APAMARGA**

Gana

The plant has been mentioned in manuscripts of Ayurveda and Chinese medicines. In Ayurveda, two varieties, red and white are mentioned. In Sanskrit, synonyms describe this as a rough flowered stalk. The diuretic properties of the plant are well known to the Indians.

The Sanskrit word apamarga literally means that which keeps away the dosas. It has numerous synonyms in Ayurveda

According to Acharya Charaka-:-Sirovirechan, Krimighna, Vamanopaga.

According to Acharya Vagbhatta-:Mutravirechaniya

According to Acharya Sushruta-:-Arkadi

Botanical name-Achyaranthes aspera

Family -Achyranthecae

Comman name-Prickly chaff flower

Other names Sanskrit: Apamarga Hindi - Chirchita Marathi-Aghada

Bengali-Apang, Apamarga Kannad-Utraigida, Mayurak Malyalam-Cadelari, Kadalade Telagu -Apamargamu, Uttarenu Tamil-Nayurvi Synonyms

Apamarga-which clear out t

he doshas from body Shikhari-As its flower and fruits are in the form of flag Adhashalya-As its fruitare having the spikes which are directed downwards Kharamanjari-As its flower are rough in touch.

Kinhi-As it mitigates wound and ulcer.

Mayurak-As it has Mayur (peacock)coloured spikes.

Pratyakpushpa-As it contains many flowers.

Ksharamadhya-As kshara is prepared from it.

# DESCRIPTION

Annual or perennial herbs, 30-90 cm tall, often with woody base, branches obtusely 4-angled, striate, pubescent. Leaves variable, ovate- elliptic or obovate rounded. Flowers greenish white, numerous, in axillary o terminal spike

### **PHARMACOGNOSIS**

Stem:

The stem shows 6-10 ridges and collenchyma is present under each ridge. The epidermis is covered by glandular hairs and stomata are of rubiaccous type. The vascular tissues have 5-6 rings of xylem with small strands of phloem

tissue embedded within them. The central part of the stem is occupied by pith with two medullary bundles, either separate or fused. Numerous cells with clusters of calcium oxalate crystals are dispersed in the parenchymatous ground tissue

Leaf:

The leaf has a normal dorsiventral structure with numerous cells containing dusters of calcium oxalate in palisade and spongy mesophyll tissue leaves usually thick. Elliptic or Obviate.

Sometimes nearly orbicular, usually covered afte apex finely and softly pubescent on both sides

Flower greenish, white numerous, stifly, deflexed against the woolly pubescent thachis, in elongated terminal spikes

# **DISTRIBUTION**

This species is globally distributed in the Pantropics. Within India, it is common weed found on roadsides and waste places throughout upto an altitude of 2100 metres and in the Andaman Islands.

Commonly found in shady places of the cultivated fields and chir pine plantations as a weed. It also grows in

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drier situations but does not tolerate water logging. It can be propagated by seeds.

#### **PROPERTIES**

Guna :-Laghu, Ruksha, Tikshna Rasa :-Katu, Tiktavipak :-Katu Veerya :-Ushna Prabhav-Yakrita

Uses:-		
Aruchi U	Jdar <b>R</b> oga	Chardi
Adhaman	Krimi	Agnim
		andya
PlechaVri	Pittasham	Shoola
dhee	ari	
Arsha	Hikka	Pandu
Gandamal	Hrudroga	Swasa
a		
Apachi	Amvata	Kasa
"Ashmari	Shotha	

PARTS USED - Root, Tandool, Leaf, Panchaang

### CHEMICAL CONSTITUENTS

The whole plant contains the traces of basic substances e.g. betaine. Achyranthine has been isolated from the plant. The seeds have a saponin which contains oleanolic acid, glucose, galactose, rhamnose and xylose, Two Achyranthes saponins A and B have isolated. Two new saponins C and D

are also isolated from fruits. Ecdysterone (polypodine A) and ecdysone from roots are isolated. In the seed-oil linoleic (49.4), oileic (22.6). Palmitic (1.6), stearic (4.4), beheic (1.5), arachidee (1.6). myristic (1.2) and lauric (0.4%) acids present.

# PHARMACOLOGICAL ACTIONS

Diuretic, Spasmolytic, Antimicrobicidal, Antibiotic, Antifungal, Hypotensive, Purgative, Vasodilator, Cardiac depressant, cardiac stimulant etc. KaphaVataShamak", VedanaSthapak, "Lekhan", VranShodhan, Deepana, Vishaghna, Sirovirechan, Pachana, Rochaka, Krimighna, Twagdoshahara, Hrudha, Pitta Sarak, RaktaShodhaka, Kandugna, Raktavardhaka, "Ashmarinashak Swedajanana, Vamak, "Mutral", Medoghna

# Method Of Preparation Of Apamarga Paniya Kshara

Apamargapanchang

↓
Dried Apamarga Plant (15 Kg)

↓(Added sudha) Jaddedsudha

Burnt

 $\downarrow$ 

Apamarga Ash (2 Kg)

 $\downarrow$ 

Added 6 times of water (12 litres)

 $\downarrow$ 

Kept for whole night

1

Filter 21 times through Cloth.

 $\downarrow$ 

To get clean and clear solution

 $\downarrow$ 

Filtered solution and residual part

separated

Filtrate was boiled & evaporated

 $\downarrow$ 

Heating up-to 2/3 remains

1

APAMARGA P<mark>ANIY</mark>A KSHARA

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