A REVIEW OF PROPERTIES OF ‘UDAYABASKARA RASA’ - A HERBO-MINERAL AYURVEDIC FORMULATION

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ABSTRACT
The main objective of this review article is to discuss the therapeutic uses of Udayabhaskara Rasa and to discuss the different pharmacological properties and therapeutic uses of isolated constituent drugs of UdayabhaskaraRasa. The authentic subject material has been reviewed from Ayurveda and modern medical literature. Different research and review article were searched in different journals. The subject material has also been searched on internet. This review is mainly focused on different aspects of herbo-mineral Ayurvedic formulation Udayabhaskara Rasa. In Ayurveda UdayabhaskaraRasais mentioned in the management of AmavataRoga (Joint disorder). It is well recognized in Ayurveda that most of the joint diseases run a chronic course and are difficult to treat. Now a days, it is well acknowledged and established by several experimental and clinical studies that joint diseases have a psycho-social impact. Most of the joint diseases have strong relation with psychological stress and stress is responsible for onset and exacerbation of different joint disorders. Herean attempt has been made to address therapeutic uses of Udayabhaskara Rasa and its constituent drugs.

Keywords: Udayabhaskara rasa, amavata, joint disorder

INTRODUCTION
Man has been using natural products for combating diseases since times immemorial. Natural products, including plants, animals and minerals have been the basis of treatment of human diseases. History of medicine dates back practically to the existence of human civilization which includes many ludicrous therapies. Nevertheless, ancient wisdom has been the basis of modern medicine and will remain as an important source of future medicine and therapeutics. An impressive number of
modern drugs have been isolated from natural sources. Many of these isolations are based on the uses of these agents in traditional medicine. The plant based, traditional medicine systems continues to play an essential role in health care, with about 80% of the world’s inhabitants relying mainly on traditional medicines for their primary health care.

Udayabhaskara rasa\(^1\), an Ayurvedic herbomineral formulation is indicated in the management of Amavata\(^2\) (joint disorder). It contains eight mineral drug and seven herbal drugs viz Shuddhaparada (mercury), Shuddhagandhaka (sulphur), Shuddhatankana (borax), Shuddhajayapala (Croton tiglum), shunti (Zinziberofficinale), maricha (Piper nigrum), pippali (Piper longum), yavakshara, sarjakshara, samudralavana, saindavalavana, sourchalalavana, vidalavana, romakalavana, beejapoora (Citrus medica).

**Table 1:** Table showing list of drugs with Quantity

<table>
<thead>
<tr>
<th>INGREDIENTS</th>
<th>QUANTITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>ShuddhaParada</td>
<td>1 part</td>
</tr>
<tr>
<td>ShuddhaGandhaka</td>
<td>1 part</td>
</tr>
<tr>
<td>ShuddhaTankana</td>
<td>1 part</td>
</tr>
<tr>
<td>Shuddhajayapala</td>
<td>1 part</td>
</tr>
<tr>
<td>Trikatu</td>
<td>1 part each</td>
</tr>
<tr>
<td>Yavakshara</td>
<td>1 part</td>
</tr>
<tr>
<td>Sarjakshara</td>
<td>1 part</td>
</tr>
<tr>
<td>Panchalavana</td>
<td>1 part</td>
</tr>
<tr>
<td>Beejapooraswarasa</td>
<td>Q.S</td>
</tr>
</tbody>
</table>

**PARADA**

As soul plays an important role in body, like wise Parada is the soul of Rasasasstra and is considered to be the master metal. Because of its mystical importance, it sits at the head of all other rasa base materials. Any rasa medici containing mercury has its strength increased tenfold.

Mercury is a dense, silvery-white, poisonous metal with a mirror-like appearance. It is also known as quicksilver or hydrargyrum. It is the only metal that is liquid at room temperature and has one of the narrowest ranges of its liquid state of any metal. It is divisible into spherical globules, mobile, without having any odour / taste, cold to touch, slowly volatizing at ordinary temperature.\(^3\)

**Pharmacological and Therapeutic Properties:**\(^4\)

<table>
<thead>
<tr>
<th>Rasa</th>
<th>Shadrasa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guna</td>
<td>Snigda, Sara and Guru</td>
</tr>
<tr>
<td>Veerya</td>
<td>Ushna</td>
</tr>
<tr>
<td>Vipaka</td>
<td>Madhura</td>
</tr>
<tr>
<td>Doshagnata</td>
<td>Tridoshagna</td>
</tr>
<tr>
<td>Karma</td>
<td>Yogavahi, Rasayana</td>
</tr>
<tr>
<td>Vrishya</td>
<td>Balis, Vyasstambhana, Pustikaraka, Deepana, Agnivardhaka, Deha and LohaSiddhikara, Ropana, Krimighna.</td>
</tr>
<tr>
<td>Rogaghanata</td>
<td>Vataroga, ValiPalita, Jara, SarvaAkshiroga, Krimi, Kusta.</td>
</tr>
</tbody>
</table>

**GANDHAKA**

Gandhaka is grouped under Uparasa. It is considered as an essential agent for the various process of Parada such as Murchana and Jarana etc. It is believed to impart many desirable properties to Parada and reduce its toxic effects. Probably because of this Parada is mostly administered internally in association with Gandhaka, as Parada preparations without Gandhaka are considered being toxic. Sulphur is an abundant, multivalent non-metal which has the atomic number 16. It is denoted with the symbol S. Elemental Sulphur is a bright yellow crystalline solid when at room
temperature. In nature, it can be found as the pure element and as sulphide and sulphate minerals. It is estimated as the Ninth most abundant element in the universe.

**Pharmacological and therapeutic properties:**

- **Rasa**: Madhura⁵, Katu, Tikta, Kashaya⁶
- **Guna**: Ushna, Sara Snigdha
- **Virya**: Ushna
- **Vipaka**: Katu
- **Karma**: Deepana, Pachana, Vishahara, Jantughna,
  - **DoshaPrabhava**: KaphaVatahara, Pittavardhaka.
  - **VyadhiPrabhava**: Kandu, Visarpa, Krimi, Kustha, Kshaya, Pleeha, Rasayana.

**TANKANA**

- **English name**: Borax

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Table 2: List of pharmacological, physical and chemical properties of *Panchalavana*

<table>
<thead>
<tr>
<th>Sl No</th>
<th>Drug name</th>
<th>English name</th>
<th>Pharmacological Properties</th>
<th>Physical properties</th>
<th>Chemical Composition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>SaîndhavaLavana</td>
<td>Rock salt</td>
<td>Rasa - Madhura</td>
<td>Appearance – stony piece</td>
<td>Sodium chloride</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Guna - Laghu, snigdha</td>
<td>Colour – whitish red</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Veerya - Sheeta</td>
<td>Consistency – hard dissolve in water</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Karma - deepana, vra-</td>
<td>Taste – saltish</td>
<td>Sodium chloride</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>nashodhana, rochana,</td>
<td>Appearance – big masses</td>
<td>NaCl – 97.82 % w/w</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>hrudya, vrushya.</td>
<td>Colour – blackish brown</td>
<td>Total Sulphide Na2S – 0.918% w/w</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Consistency – Hard</td>
<td>Iron fe – 0.030 % w/w</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Insoluble matter – 0.07% w/w</td>
</tr>
<tr>
<td>2.</td>
<td>SouvarchalaLavana</td>
<td>Black salt</td>
<td>Rasa - Katu</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Guna - Laghu</td>
<td></td>
<td>Sodium chloride</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Veerya - usna</td>
<td></td>
<td>NaCl – 93.77% w/w</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Karma - gulma, shoola,</td>
<td></td>
<td>Total Sulphide Na2S – 0.121% w/w</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>vibhandahara, ruchya.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Vida Lavana</td>
<td>Sanchal salt</td>
<td>Karma - Hrudroga-</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>nashana, vatanulomana,</td>
<td></td>
<td>Sodium sulphide</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ruchya</td>
<td></td>
<td>Na2S – 0.121% w/w</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4. **SamudraLavana**
   Sea salt
   **Rasa** - Madura, lavana
   **Guna** - snigdha
   **Karma** - vidahi, shoolagna
   Appearance - cubical crystals
   Colour - whitish grey
   Consistency - Hard
   Consistency – Hard
   Iron fe – 0.0089 %/w
   NaCl – 91.39%w/w
   Sodium Sulphide – Na2S – 0.121%w/w
   Others – minor quantities of calcium sulphate, magnesium sulphate, magnesium chloride

5. **RomakaLavana**
   Sambhar salt
   **Veerya** - Ushna
   **Guna** - Teekshana
   **Vipaka** - Katu
   **Karma** - Mootrala, vid bheda
   Appearance - circular crystal form
   Colour - whitish grey
   Consistency - hard
   NaCl – 97.11% w/w
   Sodium sulphide – Na2S – 0.060 %/w
   Sodium bicarbonate NaHCO3 – 0.049%
   w/w

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**JAYAPALA**^8^  
Botanical Name: Croton tiglium Linn.  
Family : Euphorbiaceae

**BOTANICAL DESCRIPTION**

A small evergreen tree 15-20’high, the young shoots sprinkled with stellate with stellate hairs; bark smooth and ash coloured. Leaves simple, alternate, thinly membranous, 5-10’cm long. Glabrous, ovate, acuminate, serrate, glandular beneath, 3-5 nervsed, petiole slender, 2.5-5.0cm long. Flowers small, yellowish-green, unisexual, in 5-7.5cm long racemes. Capsule obtusely trigonous, glabrous, turbinate-ovoid, upto 2.5cm long, white. Seeds oblong, pale, obtusely trigonous and about 2cm long, flowering and fruiting: march-june

**Parts Used:**
Seeds, Wood, Seed oil, Root.

**ACTION AND USES**

Root is beneficial in dropsy, lead poisoning, cerebral haemorrhage or convulsions and congestions, apoplexy, intestinal obstructions, gout, rheumatism, arthritis, lock jaw, mania, chronic laryngitis, bronchitis and to increase vigour mainly.

Croton seeds are used as a drastic and violent purgative in conditions like apoplexy, insanity and convulsions attended with high blood pressure. The expressed oil from the seed is given in paralysis and painful conditions of joints and limbs. The oil from the seed is purgative, carminative, and useful in diseases of the abdomen, psychological illness and inflammations.

**Pharmacological and therapeutic properties:**

- **Rasa** - Tikta, Katu
- **Guna** - Guru, ruksha, tikshana
- **Vipaka** - Ushna
- **Doshagnata** - Kaphapittashamaka
Karma- Lekhana, vidahi, sphotajanana, krimigna, shothahara, vishagna, virechana, kustagna, kaphagna
Rogagnata - Root -kusta, krimi, jalodara, sar pavisha, kasa,
Seed oil-.udararoga, vibandha.
Dosage- Seed powder 6-12gm, seed oil-1drop.

SHUNTI
BOTANICAL NAME: Zinziberofficinale
Family : Zinzeberaceae
Shunti is one of the reputed drugs of the Ayurveda. Charaka, Sushrutha and Vagbhata mentioned its use in Udararoga. Shotha, Karnashula, in kaphavataroga. Various properties and uses have been mentioned in different nighantus such as Raja Nighantu, Shaligram-Nighantu and others.
Botanical description:
A herbaceous, rhizomatous perennial plant. Rhizomes are horizontally growing with sympodical branching. It grows to a length of 5 to 15 cm, width of 3-4cm and thickness of 0.5 to 1.5 cm. Shaper is laterally flattened on the upper side with sort flattened, oblique, obovate, branches or fingers. Fracture surfaces of rhizomes shows a narrow bark, a well-marked endodermis and a wide stele. Leaves are simple, alternate, distichous, narrow, oblong, lanceolate, 15-30cm long and 2-3cm broad with sheathing bases and the blade gradually tapering to a point. Flowers are from solitary, lateral, radical, pedunculate, oblong, cylindrical, spike. Flowers are rare, rather small with superior gamosepalous calyx and corolla of 3 sub equal oblong to lanceolate connate greenish segments. Flowering seasons is usually the rainy reason.

Part used: Dried Rhizome.
Pharmacological properties:
Rasa : Katu
Guna : Laghu, Sheetha
Veerya : Ushna
Vipaka : Madhura
Doshagnata : Kaphavatashamaka
Karma : Agnideepaka, Hridya, Ruchya, Swarya, Jwaragna, Shoolagna.

PIPPALI
Botanical name :Piperlongum
Family : Piperaceae.
Charaka included pippali under kasahara, ShiroVirechana and Deepaniyaganas, whereas Sushruta included it under pippalayadi, Urdvabhagahara and ShiroVirechaniyaganas.
General features:
Piper longum is a glabrous, under shrub, with erect stem and slender branches. The slender branches more often creeping or tailing and rooting below or rarely descendent to few meters. Leaf is simple, alternate, entire glabrous, 7 veined leaves that vary in shape and mode of attachment even in the same plant. Leaves are stipulate, petiolate and nearly sessile according to their position on the plant. Blade varies in shape in the same plant. The upper leaves are generally sessile, amplexiual or stem clasping, ovate to cordate at base while the lower ones are usually cordate.
Pharmacological properties:
Rasa -katu
Guna -Laghu, Snigdha, tikshna
Veerya - Anushnasheeta
Vipaka - Madhura
Doshagnata – Kaphavatashamaka


**MARICHA**

**BOTANICAL NAME:** Piper nigrum

**Family:** piperaceae

Charaka classified Maricha under Deepaniya, ShoolaPrashamana, Krumigna and Sushruta under Pippyadi varga and in Truyshana.

**Habit and general features:**

It is stout, quite glabrous, glandular, aromatic, woody, perennial climber, clinging to supports by means of several adventitious roots. Branches are Short, Stout Lateral. Leaves are Simple, Short stalked 10-18 cm long and 5-13 cm board. Glabrous one – seeded berries are about 3mm in diameter and are reddish when ripe, Fruits ripen in December and January.

**Parts used:** Fruit and Root.

**Dosage:** Phalachoorna 0.5 to 1g.

**Pharmacological properties:**

<table>
<thead>
<tr>
<th>Rasa</th>
<th>: Katu</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guna</td>
<td>: Laghu, Teeksha</td>
</tr>
<tr>
<td>Veerya</td>
<td>: Ushna</td>
</tr>
<tr>
<td>Vipaka</td>
<td>: Katu</td>
</tr>
</tbody>
</table>

**SVARJIKAKSHARA**

Svarjikakshara is prepared from the plant known as lona (kshudraduralabha) in Punjab and Sindh.

The svarjikakshara which is obtained is purified by mixing it in water and decanting the water next day and filtering it 5-6 times with thick cloth and dried on fire.

In certain hills or places adjacent to hills layer of alkaline soil are found in abundance this soil is called as “swarjikamrit”, it is dissolved in 4 times of water filter it many times, distil the water and dry in to crystal form. The obtained drug is called as swarjikakshara.

**Pharmacological properties:**

Veerya- ushna

<table>
<thead>
<tr>
<th>Guna</th>
<th>-laghu, teeksha, rukshagina, Kledhi, vidarana, dahana, dipana, and chedana</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matra</td>
<td>–3-12 ratti</td>
</tr>
<tr>
<td>Anupana</td>
<td>– madhujala and ksheera</td>
</tr>
</tbody>
</table>

**Chemical constitutes**

Galacto-catechin, catechin, epigallocatechin and leucodelphinidin, B-phenethylamine, hor- denine, saldodine.

**YAVA KSHARA**

Yava – Barley (HardeumVulgare)

Ripped barley plants should be cut dried and then burnt to ashes and the alkaline material, obtained from that ash by ksharavidhi is known as Yavakshara.
YAVAKSHA NIRMANA:-
Yavapanchanga → bhasma→ 8 parts water →
7 times vastragalana and again heat → dried.
Pharmacological properties:
Veerya - usha
Guna - laghu, thikshna, rukshaguna,
Kledhi, dahana, dipanandachedana
Rogaghnata - hridroga, pandu, grahani, pli-
haroga, anaha and galaroga.
Matra – 3-10 ratti
Anupana – jala/ ksheera

BEEJAPORA SWARASA14
Botanical name : Citrus medica
Family : Rutaceae.
Citron fruit looks like a big lemon, with very
less inner pulp content. Its fruit peel, seed,
pulp etc are used in Ayurvedic treatment. It is
widely used for treating abdominal colic, di-
gestive disorders, piles etc.
Pharmacological properties:
Rasa : Amla, Madhura
Guna : Laghu, Snigdha,
Vipaka : Amla
Veerya : Ushna
Karma : Deepana, Hridya.
Doshaghnata : Vatakaphahara.
Partused-Fruit,root
Dosage- Fruit juice 10-20 ml

DISCUSSION
• Amavata is an auto-immune disorder,
drugs like parada and gandhaka (i.e.
kajjali) which is shreshtarasayana helps
in such auto-immune disorder by boosting up
immunity.
• Tankana acts as vata-kaphahara, jayapala
does rechana, and brings back vata to its
normal position.
• Drugs like trikatu helps in amapachana &
acts as jwarahara.
• Two ksharas acts as dipana, chedana etc.
• Panchalavanas acts as asamahara, aruchi-
hara, shothahara, dipana, pachana,
vedhanahara.
• Beejapoora acts as vata-kaphahara. All
these pharmacological actions are against
the qualities of amavata, by this we can in-
fer that udayabhaskara rasa can become
one of the best remedy for amavata.

CONCLUSION
This review has presented a collective knowl-
edge on therapeutic, pharmacological and me-
dicinal applications of udayabhaskara rasa
and its constituent drugs. This review will
also facilitate to gain all about the past scien-
tific research and the necessary information
about the enormous pharmacological ac-
tivities of these drugs which would motivate
and lead to further exploration of pharmacol-
ogical activities of these ingredients to protect
human beings from different types of diseases
specially joint disorders and may serves as
useful treasure for the promotion of health.

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element%29
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