A Review on Kukkutanda Twak Bhasma

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ABSTRACT

We very well-known and frequently used food ingredient is kukkutanda (Hen's egg shell). In the 9 falls under Sudha Varga and contains a calcium component. Early manuscripts referred to calcium-containing medications like Sudha, Karmaprishtha, Varatika, etc. as Shakla varga. The phrase Sudha Varga is frequently used in contemporary publications, particularly in works from the 19th and 20th centuries, to describe the addition of calcium-containing medications. A much more absorbable organic calcium source than inorganic forms is Kukkutanda Twak: Details on its composition, usage, purifying (Shodhana), incineration (Marana), and other aspects are provided in this article. This article explains and discusses the usage, composition, Shodhana (purification), Marana (incineration), dose, anupana (adjuvant), and indications of Kukkutanda Twak Bhasma.

INTRODUCTION

The popular Indian system of medicine known as Ayurveda has been used extensively for around 4,000 years. Rasa shastra, also referred to as ancient Indian alchemy, is a branch of medicine that deals with a variety of issues, including the identification, incineration, purification, and collection of metals and minerals as well as a thorough understanding of their actions, properties, dosages, and medicinal preparation. Rasaushadhis (herbo-mineral formulations) are a medication created using this procedure. These metals and minerals should be treated using a variety of pharmacological techniques such as Shodhana (purification), Marana (incineration), etc. because administering them in their raw state can have extremely harmful effects on the body. Bhasmas (materials burned to ash) are utilized extensively. It is an extremely fine powder-like material that has been calcined or burnt. It is produced when metals are continually burnt in fire, and the residue also known as ash is regarded as bhasma. Due to their extremely small particle size (micro or nano) and targeted action, bhasmas are medically more potent and are only utilized in small amounts. The varga known as Uprasa, Sudhavarga, Vish-Upvisha varga, Maharasa, Sudharana Rasa, Dhatu-Updhatu varga, etc., are only a few of the many minerals that the acharyas very properly classified. The minerals Sudha, Shankha (conch shell), Shakti (pearl oyster), Khatika (chalk) and others that are particularly calcium-rich fall under the purview of Sudha varga. Kukkutanda twak (egg shell), which is primarily composed of calcium compounds, is also a part of Sudha varga. All of Sudha Varga's ingredients are derived from animals (Jantavadrayas). "Kukkutan+Andatwaka" makes up the two words that make up the term "Kukkutanda Twak." Andatwaka refers to the shell of the hen's egg, while Kukkata means "Hen." Typically, it is prevalent in birds because they are primarily raised for their meat and eggs. The twak (outer shell) of a Kukkutanda, or hen's egg, is utilized for a variety of therapeutic and non-therapeutic purposes. Due to their intelligence, our ancestors' Rasasahstris created a delectable type of Kukkutand twak that is safe for the body after discovering the excellent qualities and traits of egg shells. The internal usage of Kukkutanda twaka bhasma was first stated in Siddha Bhesajya Manimala in the treatment of Upadansha roga. Kukkutanda twak is already referenced in a number of granthas of Samhita kala and Sangrahala kala. A very significant source of calcium, Kukkutanda Twak Bhasma also contains some other minerals in minute amounts.

LITERARY VIEW

Birds have been extensively utilized by man for a variety of reasons since ancient times and for all of time¹. For a very typical use case during the Pre-Vedic era, namely the meat and eggs they consumed, they used it. The Samhita Kala the attributes of Kukkutanda mamsa are detailed in Charaka Samhita's Annapanavidhi Adhyaya sutra sthana.² The ingredient Kukkutanda twak is utilized in the preparation of sukhamurti and drisitiprada vartti in chikitsa sthana's trimarmiya chikitsa adhyaya.³ The word “Kukkutandaka” is mentioned in an excerpt from the Sashruta Samhita in the Sutra Sthana, Annapanavidhi adhyaya.⁴ The Kukkata and Vishkriya varga are both thoroughly explained in the same chapter.⁵ In Uttar Sthana Rakshabhisanda pratishthedha adhyaya ⁶ kriyakalpa adhyaya, too.⁷ The Kukkutanda kapala is also reused for making arjuna nashaka lekhyanjana, gatikanjana, and badrodyanjana. In the extracts of Kukkutanda twak bhasma ,Uttara sthana Sandhisasita roga pratishneath adha yaya has been mentioned as an ingredient.⁸ Bhela Samhita There is no mention of Kukkutanda twak or any passages that contain it. There isn't really any mention of Kukkutanda twak.
There are allusions to and instructions of how to use Kokkutanda twak bhasma in grahami roga in Chakradutta. There are references and explanations of using Kokkutanda twak bhasma in grahami roga. Sangrahaka Kala Samhita Sharangadhara Kokkutanda Twak is mentioned in the Utsara Tantra, Netra Prasadam Kalpana. According to reports, it is extremely effective in the conditions shukikarma and netrapushpa.

Bhavaprakash Vishkira Varga is defined by Mishruka Prakarana, who also mentions Kokkutanda's replacements. After the development of Rasashasta, references to Shodhana, Marana, Matra, anupana, and Amayika prayoga may be found in Rasagranthas. Beginning in the eighth century, there is the Rasashastra era. They are as follows: Bharata Bhaisajya Ratnakara references to Kokkutanda Twak can be found in different kalpas from volumes II, III, and IV. It imparts important and shared knowledge about these kalpas. Bhaisajyavat Ratnavalli According to anjana, Kokkutanda twak is legitimately considered a pranja dravya, and its use is utilized to treat eye diseases. Ayurveda sara sanghre in Shodhana and Marana prakarana. A thorough analysis of Kokkutanda twak bhasma's wmatra, anupana, and advantages is given.

Composition

Kokkutanda Twak contains 5% Calcium phosphate, 95% Calcium carbonate and small amounts of Magnesium carbonate, proteins, etc. Use of Calcium salts containing Calcium in various forms may be useful to avoid or to fix Calcium deficiencies, to treat osteoporosis, as an antacid, as a Phosphate binder or for acute treatment of Tetanus, Lead colic, etc.

Usage

Kukkutanda twak Bhasma (KTB) is discovered as very effective in some of the conditions such as Shweta pradara (Leucorrhoea), Premeha (Diabetes), Vatavakra (diseases because of vitiation of vata), etc. It is found very beneficial in improving bone density, because it is a very brilliant source of calcium and that is one of the reasons why it is used in Arthritis, Osteoporosis, Bone fracture etc. There are no major side effects mentioned with the normal use of egg shell calcium (KTB). Hence it can also be considered that it is safe for long-term and regular use. But scientifically speaking the validation of KTB found is very minimal. Effective use of KTB is also beneficial in appropriate utilization of the eggshells which are otherwise disposed as a waste. Shodhana (Process of Purification) There are four main methods of KT Shodhana which can be found and are also listed in the table below. Nimajjana is the most well-known method of Shodhana but the kind of media used and amount of time of Nimajjana may vary according various acharyas.

Table 1: Shodhana.

<table>
<thead>
<tr>
<th>Reference</th>
<th>Process</th>
<th>Time</th>
<th>Media Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ayurveda Sara Sangrahas[19]</td>
<td>Nimajjana(Soaking)</td>
<td></td>
<td>Ushnolaka (warm water)</td>
</tr>
<tr>
<td>Vriddha Vaidya Paramparas[20]</td>
<td>Nimajjana(Soaking)</td>
<td>24 hours</td>
<td>Tokra (Buttermilk)</td>
</tr>
<tr>
<td>Siddha Bhesha Sangrahas[34]</td>
<td>Nimajjana(Soaking)</td>
<td>1 day/24 hours</td>
<td>Ushnolaka (warm water)</td>
</tr>
<tr>
<td>Rasa Tantra Sara Siddha Prayoga Sangrahas[21]</td>
<td>Nimajjana(Soaking)</td>
<td>4-6 days</td>
<td>Saindhava + Navasadara + Udaka (water mixed with Rock salt and Potash Alum)</td>
</tr>
</tbody>
</table>

Bhavana

A well-known technique called Bhavana, often referred to as Samskara, can enhance the medicinal characteristics of a drug by adjusting the proportions of its existing components and introducing new ones. It is a very important procedure which is performed before Amrutikaran and Lohitikaran, Marana, Satvapatana, Shodhana as well as during the preparation of various medicines. It increases the production of organometallic compounds and decreases the toxicity of chemicals. The bhavana method aids in reducing the size of the drug particles, boosting their ability to absorb into the environment. Fluids such as svarasa, mutra, jala, dugdha, madhu, kwatha, and others are used for bhavana. A well-known method known as Bhavana, also known as Samskara, can improve the medicinal properties of a medicine by changing the proportions of its current components and adding new ones. Before Amrutikaran, Lohitikaran, Marana, Satvapatana, Shodhana, as well as throughout the production of various medications, it is a very important practice. It boosts the formation of organometallic compounds and lessens chemical toxicity. The drug particles' ability to absorb into the environment is improved by the bhavana procedure, which helps to reduce the size of the drug particles. Bhavana is performed with a variety of fluids, including svarasa, mutra, jala, dugdha, madhu, and kwatha.

Marana (Process of Incineration)

Marana, commonly called bhasmi karana, is an indigenous mechanism of rasa shastra. Marana means "to kill," and it refers to the death of biotic substances, which results in the loss of their vitality and activity. The word "Marana" in rasa shastra means to the conversion of metals and minerals into bhasma form, which is a very powerful type of medicine that easily incorporates in the body and requires only a small dose to achieve desired efficacy.

Table 2: Showing Different methods of kokkutanda twak bhasmikaran.

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Name of text</th>
<th>Marana dravya</th>
<th>Bhavana dravya</th>
<th>No. of puta’s</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Siddha bhesha manimala</td>
<td></td>
<td>Amla varga – 3 bhavana</td>
<td>3 Gazapata</td>
</tr>
<tr>
<td>2</td>
<td>Ayurveda Sara sangraha</td>
<td></td>
<td>Changeri svarasa</td>
<td>2/3 puta</td>
</tr>
<tr>
<td></td>
<td>Ayurveda Sara sangraha</td>
<td>Hingula (4 tola)</td>
<td>Changeri svarasa</td>
<td>2/3 puta</td>
</tr>
<tr>
<td>3</td>
<td>Rasa tantra sara avam siddha prayoga sangraha – 1st</td>
<td>Hingula (1.5 tola)</td>
<td>Changeri svarasa-kamari svarasa – 4</td>
<td>2/3 puta</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>4</th>
<th>Rasa tantra sangraha avum siddha prayoga</th>
<th>Hingula (1/8 part)</th>
<th>Nimbu swarasa - 3</th>
<th>2/3 putas</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Bhasma vigyanaiva</td>
<td>Method-1</td>
<td>Method-2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hingula</td>
<td>Hingula</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Kupari nimbu swarasa</td>
<td>Kupari nimbu swarasa</td>
<td>2/3 putas</td>
</tr>
</tbody>
</table>

**Dose**

1-4 ratti (125-500mg)

**Anupana (Adjuvant)**

Chyavanaprasha avaleha, Dadima swarasa (Juice of pomegranate fruit), Madhu (Honey), Sita (Sugar), Ksheera (Milk), Amalaki swarasa (Juice of amla), Navaneeta (Butter).

**Indications**

Sukra nirbalata, Mastishka roga (disorders of brain), Sveta pradara (leucorrhoea), Somaroga, Rakta putas (bleeding disorder), Swapna dosha, Bahu mutrata, prameha (diabetes), Rakta pradara, Makra vikara, Hridya roga (cardiac disorder), Napumsakatva.

**DISCUSSION**

In the vast field of Ayurvedic medicines, Rasashastra has made a substantial contribution. Many of the medications mentioned in the Rasashastra have both therapeutic and dietary benefits. A primary medication known as Kukkutanda tukw is frequently utilized in many different forms, including bhasma. Under Shukla Varga, Kukkutanda Tukw participated, and the division’s produced bhasma will include white-colored medications. After that, it was given the name Sudha varga since the medicine that it incorporates and contains is high in calcium. The calcium in KT is in the form of calcium carbonate, which among the calcium salts has a particularly high percentage of elemental calcium. Since KT is not harmful by nature, the procedure utilized for Shodhana involves Nimmajana (soaking), which softens the medicine and removes physical impurities, aiding in the combustion process. However, other drava dhrayyas, such as ushmodhaka, lavannodhaka, saindhara-navasadarajala, etc., are mentioned for the Shodhana process. Both the inner membranous layer and the exterior pollutants will be eliminated by this procedure. By means of the Marana process, Shodhitha KT is transformed into bhasma form. For bhavana, changari or gritakumari swarasa are employed. These bhavana medicines’ constituents will be consumed by the Kukkutanda tukw, enhancing its medicinal effects. Due to the light weight of the Kukkutanda, only 2 to 4 putas are needed to convert it into the form of bhasma. Therefore, the number of putas indicated is 4 to 6.

**CONCLUSION**

Ayurveda pharmaceutics and the usage of medications of mineral, metallic, and animal origins are covered in detail in the procedural science known as rasa shashtra. One such animal-derived medication that is used as a single bhasma and has a wide range of purposes is Kukkutanda tukw. The purifying procedure is straightforward and involves soaking in lukewarm water, buttermilk, and water combined with rock salt and pottash alum, among other liquid media. This technique will remove the undesirable qualities from the raw drug, and the method of soaking also softens the drug through the subsequent Mrana process. Since the medication is not particularly potent, just 2 to 4 putas are required to achieve bhasma. A wide range of illnesses, including Hridyo roga and Rakta putas, are thought to benefit from the bhasma. Because it’s simple to manufacture the bhasma and the medicine is simple to obtain. The bhasma can be employed in a variety of illnesses when combined with the right adjuvant and according to studies.

**REFERENCES**

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