A REVIEW ON THE CONCEPT OF DRUTI: A BASIC PRINCIPLE OF RASASHAstra

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ABSTRACT

Background: All sciences are based on some of their own basic principles & each one of them has its own definitions & terminologies, which have meanings wider than what they seem to be. Druti is one such process in the science of Rasashastra, which forms both the basic principle & definition of the science. The development of Rasashastra has made metals, minerals and stones pass through various processes like shodhan, marana, jarana, etc. with the help of supporting processes like heating, boiling, grinding, trituration, etc. so as to convert these inorganic crude drugs into a form or compound, which may suit the human body and can be absorbed and assimilated easily into the system without causing any toxic symptoms. In most of the dravyas, we know the basis for the use of a particular form and procedure. We also know the effects of a particular process.

Aim: This paper is aimed at discussing some of the concepts of Druti.

Materials & methods: An attempt has been made to approach the concept through reviews from various Ayurvedic classical and modern texts, published articles and other sources. Conclusion: It was found that, the concept of Druti is unique and has not been limited only as a procedure for liquefying a metal/ mineral, but has other implications too.

Keywords: Druti, Samskara, Rasashastra, Liquification, Ayurvedic Pharmaceutics.

INTRODUCTION

In the Ayurvedic Pharmaceutics, Samskarana means processing, done in order to establish the change in the qualities / properties of the drug. This is achieved, either by inducing a new property or improving the existing one and finally making the drug safe and more effective.

With the art and skill of formulation, a poisonous drug can be transformed into a safe and effective drug. A simple drug can be converted into a most potent one. Therefore, Ayurveda, the Science of Health and Healing, has given great emphasis to the comprehensive knowledge of drugs, preservation and dispensing of prepared drugs. Only a competent physician who has mastered the knowledge of different medicaments can treat all types of diseases. To save the lives of ailing people he should also have a thorough grip on the principles of the formulations and their practical application.

Druti (Liquification) is one such important pharmaceutical processes of Rasashastra, wherein the metals / minerals / gems are transformed into a permanent and stable liquid form. Generally it is seen that when metals / minerals are heated upto a certain temperature, they melt. But as soon as the
heating is stopped, temperature drops down, and the material solidifies. The liquid state of the material is temporary. Hence, Druti does not mean melting, but maintaining the molten state permanently, with the desired characteristic features.

Details of the process and other things have been mentioned in Rasaratna Sammucchaya (R.R.S.), Rasendra Chudamani (Ra.Chu.), Rasa Prakash Sudhakara (Ra.Pr.Su.), Ayurveda Prakash (Ayu.Pr.), Rasa Hridaya Tantra (Ra.Hr.T.), Rasarnava and other classical texts of Rasashastra.

**Definition:**
Process which maintains hard and dense dravyas in the molten state is known as Druti.

1. Aushadhaadhamaa yogena lohadhaatvaadikam tathaa| Santishthate dravaakaaram saa drutih parikeertitam|| R.R.S.8/84
2. Tushaadhaanyaadiyogena lohadhaatvaadikam tishthate dravaakaaram saa drutih parikeertitam|| Ra.Chu.4/101

Lohadi dhatus and other mineral remain in the molten state after processing with some specific herbs and intense heat. This molten state is known as the Druti of that particular dhatu or mineral. Different opinions regarding the preparation of Druti are available in the classical texts of Rasashastra.

**Types:**

**I. Based on their use:**
1. In mercurial processes.
2. In treatment of diseases.

**II. Based on the method of preparation**
1. Garbhadruti
2. Bahyadruti

**III. Based on the material**
1. Lohadruti (all metals)
2. Ratnadruti (all precious stones)
3. Gandhak druti

4. Abhrak druti, etc.
Among these Garbhadruti and Bahyadruti are the methods used in mercurial processes.

**Garbhadruti:**
Grastasya draavanam garbe garbhadrutirudaahrutaa|| R.R.S.8/81
When the material given as grass(bolus) is liquefied within mercury, it is known as Garbhadruti. The satva(extracts) of metals / minerals are liquefied within mercury. This is essential to digest the bolus as it cannot be done without liquefying.

**Bahyadruti:**
Bahireva drutam kuryaallohadhaatva adikam khalu| Jaaranaaya rasendrasya saa bahyadrutirucyate|| R.R.S.8/82
Melting Abhrakadi satva separately and then mixing with mercury for Jara is known as Bahyadruti. The satva of minerals are liquefied separately and then mixed with mercury.

**Druti lakshana:** 5 characteristics of druti mentioned are:

1. Nirlepatvam: Nonsticking; should not stick to the container.
2. Drutatvam: Liquified state; should be uniformly molten.
3. Tejastvam: Lustrous.
4. Laghuta: Lighter than the original weight.
5. Samyogaschasootena: Readily mixes with mercury.

**Vessel for Druti:** Different mushas according to their indications should be used for the purpose. Viz. Vajradravani Musha for Vajra, Mahamusha for Abhrak, Lohad satva, etc

**Fuel for Druti:**
Draavane satvapaate cha maadhukaah khadiraah shubhaah| Durdraave
For the process of melting or extraction of a metal or mineral, one should use the coal of Madhuka or Khadeera wood. For those which are difficult to melt, coal of Vansha, for swedan Badara coal should be used.

Storage:
Kusumbhatalamadhye tu samsthaapyaa drutayah pruthak| Tishthanti chirakaalam tu praapte kaarye niyojayet|| R.R.S.4/ 82
Druti is to be stored in glass containers, particularly Ratnadi Drutis in Kusumbha Taila.

METHOD:
Gandhakdruti:
Kalaamshavyosha samyuktam gandhakam shlakshna choornitam| Aratnimaatre vastre tadveeprakeerya viveshtya tat|| Sootrena veshhayaiva atha yaamam taile nimajjayet|| Dhratvaa samdamshto vartimadhyam prajvaalayeccha tam| Druto nipatatito gandho bindushah kaachabhaajane|| R.R.S. 3/ 29, 30
Shudha Gandhak and Trikatu Choorna are taken in the proportion 16:1, respectively, and mixed properly. The mixture is spread over a piece of cotton cloth of one aratni (10½ inches) length and breadth. The cloth is then rolled and tied with a thread to make a wick and immersed in Tila taila for one yama (approx. 3 hours). The wick is then held in the centre with a pair of tongs and ignited at both the ends. Drops of oil dribble from the burning ends of the wick which is collected in a glass container.

Ratnadruti:
Raamatham panchalavanam sadaa ksharaa yugmamapi chetsupeshitam|| Chullikaa-lavanam amlavetasam pakva-kumbhiphalam tathaiva cha|| Chitramoolaka rudantike shubhaa jambukee jalayuttaa dravantikaa|| Arkadugdha samasoudhadugdhakam sarvameva mruditam shilaatale|| Golamasya cha vidhaayanikshipradnatjaaatishu varaani peshayet|| Bhoorjapatramabhisheena golake golakopari niveshtya sootratah|| Vastrena samveshta yatra tatah prayatnaaddolaakhyayantre athaniveshtya golakam| Sarvaamlayukte tushavaari-poorite paatre drudhamannaya-samdnyake hi| Dinatravay swedanakam vidheyam aahrutya tasmaadvargolakam samkshaalayeechchaamlajalena chaapi samjaayate ratnabhavaadritishcha|| Ra.Pr.Su. 7/57-61
Hingu, five Lavanas, two Ksharas, Chullika lavana, Amlavetas, ripe Kumbhiphala, ChittraKula, Rudanti, Jambuki, fresh Dravanti, Arka dugdha, snuhi dugdha are made into fine paste. A ball of this paste is made; powder of the desired ratna is kept in the centre and wrapped in Bhooja patra. This is then wrapped with a cloth and finally tied with a thread. This pottali is further subjected to swedana in Amla Tushodaka with the help of Dolayantra for three days. The druti is then collected after washing with hot water.

Characteristics:
Varnena saa ratnanibhaa chakaantyaa laghveebhaved dehakaree cha samyak| Lohasyavedham prakrooti samyak sootenaa samyak milanam prayaati|| Tadaa bhaveyuh khalu siddhataa yadaa hingvaadvargena milanti samyak| Yaamadvayam kaamsyavimarditaa vai chaatiprayatnena tu vaidhavaryaah| Kasyaapi nuh siddhyati vai drutishcha yaddaa prasannah khalu paarvateeshah|| Ra.Pr.Su.7/62-65
Ratna Druti should possess the colour and luster of that ratna from which it is made. It should mix with mercury easily during lohavedha. It should be useful as Deha-
Druti bandha is one among the Parad bandhas, wherein, Parad (mercury) is stabilized by various procedures. This is so called because Parad is stabilized through Bahyadruti. Such parad is said to be useful in even most incurable diseases with a dose of just 1/4th rajika (1/2 mg).

CONCLUSION: It was found that, the concept of Druti is unique and has not been limited only as a procedure for liquefying a metal/ mineral, but has other implications too. Different procedures and drugs were used for the same which gave rise to many different methods of preparation. Druti has been developed for mercurial processes, especially Lohaveda, and later used in curing diseases as well.

REFERENCES:

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