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Review Article

EXPLORING PHARMACEUTICS IN SUSHRUTA SAMHITA: A CONCEPTUAL ANALYSIS

Preet Bang^{a*} | Shrutika Sarode^a | Mrunali Bhosale^a

AFFILIATIONS:

^aResearch Associate, ICRO

CORRESPONDENCE:

Preet Bang, Research Associate, ICRO,
Pune

EMAIL ID:

preetbang@gmail.com

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ABSTRACT:

The field of study known as Bhaishajya Kalpana studies the transformation of basic materials into forms that are suited for therapeutic use. Before modern times, doctors would make their own medications to give to their patients. Dhanvantari sampradaya, which focuses mostly on shalya and shalakya tantra, is home to Sushruta samhitha. Despite being a Shalya Pradhana work, there are scattered details about pharmaceutics in each part. Here, an attempt has been made to gather the key ideas of Bhaishajya Kalpana as they are presented in the Sushruta Samhitha. Sushruta Samhitha was searched literary and themes related to it were searched in peer-reviewed publications. The various notions that were discovered include adharabhutha siddhanta, dravya Sangrahana and samrakshana, details of kshara and sneha kalpana, as well as additional kalpana such as lavana, ayaskruthi, pathya kalpana, and masi kalpana.

In conclusion, the Sushruta Samhitha originated in antiquity. Information pertaining to Aushadha Nirmana is dispersed throughout all divisions. Information is provided about drug collection, dose forms, and preparation techniques. There was no distinct branch during the Samhitha period for the manufacture of medicines. This suggests that every vaidya had to be aware of bhaishajya kalpana, and that knowledge of it was inescapable.

KEYWORDS: Aushadha Nirmana, Bhaishajya Kalpana, Pharmaceutics and Sushruta Samhitha

INTRODUCTION:

The field of study known as Bhaishajya Kalpana (Ayurvedic Pharmaceutics) is concerned with transforming basic materials into forms that are therapeutically appropriate. Before modern times, doctors would make their own medications to give to their patients. The Vedas contain information about the many dose forms, such as swarasa and kalka. Pharmaceutics is not included in a specific section of old Ayurvedic literature like Brihatrayee; instead, information on the subject is strewn throughout. A few mineral preparations and dietetic preparations are also explained. The ideas surrounding the manufacture of medicine were collected by Acharya Sharangadhara in the 13th century BC and placed into a distinct branch known as bhaishajya kalpana. In Sharangadhara Samhitha, several dose forms and their specifics are explained in a methodical manner. Sushruta Samhitha is a member of Dhanvantari Sampradaya, which focuses on Shalya and Shalakya tantra among its adherents. It dates back to around the year 1000 BC. There are six sthana in the Sushruta Samhitha as it is now available. Despite being a shalya pradhana work, there are scattered facts about aushadha nirmana in each division. This is an attempt to summarize the key ideas of aushadha nirmana as they are presented in Sushruta Samhitha^[1].

MATERIALS AND METHODS:

Sushruta Samhitha was searched literary, and peer-reviewed publications were examined for relevant themes.

OBSERVATION:

The Samhitha contained information about pharmaceutics in a disorganized fashion. The following are the various ideas.

- Adharabhutha siddhanta encompasses the notions of dravya sangraha and samrakshana, maana, and viruddha.
- The idea behind Shadvidha Kashaya Kalpana
- Information about Kshara Kalpana
- Information on Sneha and Kashaya Kalpana, including their ratio and regulations.
- Various techniques for extracting and preparing taila, including shatapaka and sahasrapaka taila
- Some examples of kalpana are Lavana, Ayaskruthi, Ppathya, and Masi.

1. The idea of Samrakshana and Aushadha Sagraha^[2]

A crucial step in the manufacture of medicine is the collecting of pharmaceuticals, particularly high-quality drugs. Our acharya had knowledge of this for a long time, which is why they provided an explanation. Prior to gathering the medicine, one must carefully inspect the area for contamination; areas with anthills, temples, and burial grounds should be avoided. One should examine the plant after examining the land. Plants should be free of shastra (sharp items), visha (poison), and krimi (pests). They should also have a single rasa (taste), be deeply anchored, and have roots that travel northward. The following is a specific reference of the collection of janghama dravya (medicine derived from animals): middle-aged animals' blood, hair, hoof, milk, and urine should be collected after food digestion.

When it is time for collection, ushna dravyas and sheeta dravyas should be placed in separate kaals.

2. The idea behind Bhesajagaara^[3]

The medications that have been gathered ought to be cleansed and stored correctly. It is said that the location should face an auspicious direction, be tidy, and contain medications in pots that are either hung from hooks or set on wooden planks and covered with cloth.

3. Maana's concept^[4]

The idea of measuring is crucial to the planning of medical interventions. Moreover, Bindu Pramana is seen. The drop that results from removing the two index finger phalanges after dipping them in a liquid is known as bindu^[5].

4. The idea of Viruddha^[1]

A description and example are provided for the idea of incompatibility. The concepts of samyoga, karma, maana, and rasa viruddha are used to explain it. As an illustration: Samyoga viruddha includes aanupa desha, sprouted grains with gramya meat, and freshly gathered grains. Karma viruddha: kapota meat cooked in sarshapa taila (mustard oil); ghee preserved for more than ten days in a bronze vessel. Maana viruddha: equal parts of ghee and honey; honey and water. Rasa viruddha, Madhura Kashaya, Amla Kashaya, and Madhura Amla, among others.

5. The idea behind Shadvidha Kashaya Kalpana^[6]

The initial preparations are the most crucial aspect of bhaishajya kalpana. The text provides an explanation of six kashaya kalpana. They are churna, shrutha kashaya, sheeta kashaya, kalka, rasa, and ksheera. These initial preparations are utilized to create secondary preparations and have a significant function in treatments.

6. Kshara Kalpana's concept^[7]

A thorough explanation is provided on the definition, characteristics, kinds, and preparation of kshara kalpana. It is also explained how the Kshara Sutra is used in Nadivrana Chikitsa. Kshara Kalpana is the subject of an entire chapter.

7. The Sneha Kalpana concept^[8]

Several chapters contain information on how to prepare kashaya, its proportion, and certain preparation-related guidelines. There are two types of kashaya: sheeta kashaya and shrutha kashaya. Mainly, the idea of Sneha Kalpana is used to describe the proportions. If kashaya is used as drava dravya for the preparation of gritha or taila, the proportion of drug to water needed to prepare the kashaya is specified. Also mentioned are the several types of sneha paaka, including mridu, madhyama, kharapaaka, and sneha paakasiddhalakshana. There are explanations of many taila preparations, such as bhallataka taila using paatala yantra, anu taila, and gandha taila. Taila extraction tools are also described in these preparations. The process of making dipika taila is also described^[14].

8. The idea behind Sahasrapaka and Shatapaka taila^[9]

The efficacy of a taila is increased by reprocessing it 100 or 1000 times. A thorough description of the preparation process is included.

9. Churna Kriya/Ayaskriti concept^[10]

It is described how metals, particularly iron in the form of churna, can be used therapeutically. Although the Marana or

Bhaskarana approach is not observed, this page explains the process of reducing the particle size. Various aushadha ayask kinds

10. Variations in dosing forms

- Lavana Kalpana^[11]. There is mention of sneha lavana and patra lavana preparation. In patra lavana, fresh leaves of various medicines are heated in a sumptuous pot covered with cow dung along with an equivalent amount of salt. In sneha lavana, ghee, oil, muscle fat, and marrow are combined with various medicine stems in a pot. After that, cow excrement is added to the pot and heated.
- Varti Kalpana^[12]. It explains Vrana Varti. The medications that are used to create varti have shodhana properties.
- Pathya Kalpana^[13]. The qualities of manda, peya, vilepi, yavagu, payasa, krishara, tandula, supa, mamsa rasa, yusha, khada, khambalika, raaga, shadava, rasala, and sakthu have all been mentioned by the author.

DISCUSSION:

Sushruta Samhitha contains concepts pertaining to fundamental pharmaceutics principles such as drug collection and storage, measures, and incompatibility. The book included seventeen distinct dose forms along with their corresponding preparations. The author specifies the precise age and time for the collection of janghama dravya (drugs with animal origins), which is unique to this literature, while describing the gathering of aushadha sangraha. It shows how much weight is placed on drug collection and when it should be collected. Harad rutu was found to contain significantly more active principles than any other rutu in a study evaluating the impact of rutu on haridra quality using pharmacopoeial assays and HPTLC fingerprinting. Sharad Rutu is an ushna kaala and Haridra is an ushna virya.

An entire chapter is devoted to kshara kalpana and its usage is detailed even prior to drug collection. This may be because kshara does not require a set time or duration for collection and may have been more common during the Sushruta era.

In Sushruta Samhitha, shadvidha kashaya kalpana is represented by ksheera, rasa, kalka, shrutha kashaya, sheetha kashaya, and churna. In comparison to sapthavidha kashaya kalpana in Harita samhitha and panchavidha kashaya kalpana in Charaka samhitha, it differs slightly. Here, "ksheera" can refer to the latex of several medications that are used to prepare both milk and kshara.

Kalingamaana is the Maana that follows in the Sushruta Samhitha. It is described prior to the explanation of how to prepare snehakalpana.

The concept of incompatibility, or viruddha, is classified into four categories: kaala, samyoga, asa, and maanaviruddha. In contrast, the Charaka Samhitha explains eighteen distinct varieties of viruddha. In some cases, the instruments used for taila extraction are indicated. It should be mentioned that taila extraction technologies and the idea itself have been around since the Samhitha period. Sharangadhara Samhitha follows specific guidelines and proportions that are provided for making sneha kalpana.

In several chapters, dosage forms such as varti, masi kalpana, and asavarishtha are mentioned. The commentator goes into detail on the preparation process, but the qualities of pathya kalpana are mentioned. This demonstrates that the vaidya/acharya of the Samhitha era were knowledgeable about the various dose forms, how to prepare them, and how to use them.

Despite the fact that Sushruta Samhitha has provided numerous dosage forms, the particular SOP is not available for those formulations. The Sushruta Samhitha does not contain other manufacturing-related information, such as safety measures to be followed during preparation, processing time, quality standards during processing (Siddhi lakshana), and other parameters.

CONCLUSION:

The Sushruta Samhitha dates back to approximately 1000 BC. There are six sthana in the Sushruta Samhitha that is currently available. Despite being regarded as a shalya pradhana tantra, information about pharmaceutics is dispersed throughout all divisions. There is a reference of Shadvidha Kashaya Kalpana and a thorough description of Kashaya, Sneha, Kshara Kalpana, and Ayaskrithi. There was no distinct branch during the Samhitha period for the manufacture of medicines. This suggests that every vaidya had to be aware of bhaishajya kalpana, and that knowledge of it was inescapable.

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