

MONTH: MAY: JUNE -2016

VOLUME: 4, ISSUE: 3

ISSN: 2348-1846



Punarna V

TITLE

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**AN INTERNATIONAL PEER REVIEWED AYURVED JOURNAL
ON LINE BI-MONTHLY AYURVED JOURNAL**

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SWOT ANALYSIS: KALPA STHANA OF CHARAKA SAMHITA

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ABSTRACT:

SWOT stands for Strengths, Weaknesses, Opportunities and Threats. It is a way of summarizing the current state of a company and helping to devise a plan for the future. The chapters of kalpa sthana mainly deals with usage and preparation of medicine and the next sthana i.e Siddhi Sthana deals with successful administration of therapeutic measures. Here an attempt is being made to SWOT analyse the kalpa Sthana in order to bring the Sthana to lime light, to employs the existing strengths, redress the existing weaknesses, exploit opportunities and defend against the threats.

KEY WORDS: *kalpa Sthana, Opportunities, Strengths, Threats, weaknesses,*

INTRODUCTION

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The Charaka Samhita is the most referred text of Ayurvedic students, teachers, physicians, scholars, and researchers. Acharya Agnivesh created the Agnivesh tantra approximately 3000 years ago. Acharya Charaka redacted this information about 2000 years ago. In the 4th century, Dridhabala added 41 chapters: 17 chapters of *Cikitsa sthana*, a complete *Kalpa sthana* of 12 chapters, and the *Siddhi sthana* of 12 chapters as well, to produce the present preferred version of the text.

SWOT ANALYSIS

It was originated by Albert S Humphrey in the 1960s.¹

Meaning of SWOT analysis²

SWOT stands for Strengths, Weaknesses, Opportunities and Threats. It is a way of summarizing the current state of a

company and helping to devise a plan for the future, one that employs the existing strengths, redresses existing weaknesses, exploits opportunities and defends against threats.

Definition of each of the four SWOT categories:³

STRENGTHS– A Strength is something or some capability that can help the team be successful and sustaining. It could be something that the team would share with other teams.

WEAKNESSES– A Weakness is something that is a disadvantage or significant additional challenge to the team.

OPPORTUNITY– An Opportunity is something the team may be able to do to help be more competitive or improve sustainability.

THREATS – A Threat is something that poses a risk to the team and the ability of the team to sustain itself.

Purpose of SWOT analysis¹

Strengths and Weaknesses are usually focused on issues “inside” the organization, while Opportunities and Threats are usually focused on “external” factors. However, both internal and external factors can be in any of the four categories. For this reason the SWOT Analysis is sometimes called Internal-

External Analysis and the SWOT Matrix is sometimes called an IE Matrix.

How to Use SWOT Analysis ¹

It can be used in two ways - as a simple icebreaker helping people get together to "kick off" strategy formulation, or in a more sophisticated way as a serious strategy tool.

KALPA STHANA

In the previous section i.e. *chikitsa sthana* (section on treatment of diseases), *vamana* (therapeutic emesis) and *virechana* (purgation) are prescribed in the context of the treatment of various diseases. In the *Kalpa sthana* these recipes are described in detail. Generally purgation therapy is administered only after the administration of emetic therapy. Therefore the chapters describing emetic therapy are placed before the chapters dealing with purgative therapy in *Kalpa sthana*, among the emetic drugs *Madana-phala* is the best because it does not

produce any adverse effect. Therefore the chapter dealing with this drug is placed in the beginning. Total 12 chapters are seen in this *Sthana*, of them first 6 including *Madanakalpa* are on pharmaceutical forms for emesis and rest 6 are on purgative pharmaceutical preparations. Each chapter is named after a plant drug and in every chapter many compound formulations with suitable plant drugs are also given. Grossly all 12 chapters can be divided into *Vamana* and *Virehcana kalpa*. Since impurities are eliminated in both the cases, hence, it is known as *Virechanasanjna* (evacuative).⁴

Defination of kalpa sthana

Kalpa is that which is processed. In this regard pharmaceutical preparations are called *Kalpa*. This *sthana* is called *kalpa sthana* as formulation of emetics and purgatives are described.⁵

STRENGTHS OF KALPA STHANA

Some unique contributions of *kalpa sthana* is strength in itself-

1. **Importance of shodana:** In *kalpa sthana* of *charaka samhita* prime importance has been given to *shodana* treatment i.e. *vamana* and *virechana*. Where as in *sushruta samhita* and *ashtanga hrudaya visha chikitsa* is the main topic.

2. **Explanation about pharmacokinatics of *vamana* and *virechana*:** i.e. along with effect of particular *panchmahabhuta*, *prabhava* is the main cause for the drugs to act as *vamaka* and *virechaka*.

3. **Associated factors for causing both the actions:** It is clearly mentioned that these drugs became efficacious if

they are collected keeping in view *desha* (appropriate habitat), *kala* (season and time), *guna* (enriched with excellent attributes) .The *Vamana*

dravya (drug) possesses strong potency endowed due to *desha* (habitat), *kala* (time) *guna* (properties) and *bhajana* (container).

Taani tu dravyaani Desha-kaala-guna-bhaajana-

Sampadveeryabalaadhaanaat kriyaasamarthatamaani bhavanti || (Cha.Ka.1/7)

4. **Types of habitat with flora and fauna:** To understand the habitat of a drug, place have been categorically divided into three major

types; *Jangala* (wild/arid), *Anupa* (aquatic/marshy) and *Sadharana* (medium/combined of arid and marshy).

Trividhah khalu deshah -jaangalah, aanupah, saadhaaranashcha iti | (Cha.Ka.1/8)

The examples of the plant grown in particular habitat are enumerated separately under each category. Not only that the characteristic features of that place with Fauna of the area is also lucidly described.

It is worthy to mention here that even cleanliness and conduct of a person who will be collecting the parts of the medicinal plants has been directed, which shows deep concern of the Ayurvedic scholars for best quality drugs for Human welfare.⁷

5. **Laws for collection of different parts of a plant :** Root in summers or late winter when the leaves of the trees have ripened and withered out, barks rhizome and latex in autumn, heartwood in *hemanta* (every winter) and flowers and fruits during appropriate seasons is given. It is also emphasized that timely grown, mature, unaffected by environment and organisms are the best drug for collection. ⁶ This reflects quality, safety and efficacy of a particular drug.

6. **Administration according to doshas:** After collection and procurement of the plant drug parts, the method of administration in accordance with the involvement of three *doshas* for best effectiveness has been narrated. Also the adjuvant with the drugs like curd, honey, fruit juices, decoctions, cows urine etc according to *dosa* (*vata*, *pitta* and *kapha*) involvement in predominance is vividly stated, which has great therapeutic value⁸ and shows

standard method for the good clinical practices.⁹

7. **Chanting of hymns:** As per the ancient tradition of administration of medicine to have the uncomplicated effect, chanting of hymns is mentioned, which has psychological effect.¹⁰
8. **The dose and dosage forms are of great relevance to obtain the desired effect are also narrated:** for example, in 1st chapter *madanakalpa adhyaya*, a number of preparations in different dosage forms with the decoction of other effective drugs, superannuated fatty layer of medicated curd preparation, butter formed from the milk boiled with *madanaphala* seeds and processed with the paste and the decoction of *madanphala*, pollen like powder of *madanaphala* seeds processed in decoction of *madanaphala*, extract of *madanaphala* seeds

according to that of *bhallataka*, dried powder of seeds, linctus prepared of *madanaphala* seeds with the decoction of the other drugs etc. All such 133 formulations are described by the ancient great sages with their vast experiences. Similarly in total 600 formulations, i.e. 355 in *vamana* and 245 in *virechana* have been explained in *kalpa sthana*.¹¹

9. **Measurements:** two types of measurements *kaalinga* and *Magadha* are explained in 12th chapter of *kalpa sthana* which is a unique contribution to all the fields of sciences.¹²
10. **Sneha paka types and uses of sneha:** *mrudu*, *madhyama*, *khara paka* in *nasya*, *paana* and *basti*, *abhyanga* respectively.¹³
11. **Lehya pariksha:** In *ikshavaku kalpa* 3rd chapter, *lehya pariksha* has been dealt which is the base for modern day linctus preparations.¹⁴

WEEKNESSESS OF KALPA STHANA

1. **Lack of identification of few drugs** – like *saptala* and *shankini*.
2. **Non Availability of few drugs-** due to lack of identification, few drugs are not used for *shodana* procedures instead there substitutes are being used. For example:
 - a. **Use of substitutes for *trivrt* and *shyama*:** There is a confusion between the

trivrt and *shyama* which was further, complicated by commentators, traders and less knowledgeable physicians. Wherein adding to the existing confusion, two more words in *Susruta Samhita* and they are *Maha Trivrt* (bigger *Trivrt*) and *Maha shyama* (bigger *shyama*). They are may be roots from a fully grown and mature plant, where the roots tend to grow large because

of the perennial nature of the twining plant. At the same time, traders, who market the drug started selling some different roots or stem pieces with the name of *Trivrt* or *shyama* for hundreds of years. But in the market, stem pieces or rarely root pieces of *Marsdenia tenacissima* W. & A are sold under the name of *Trivrt* or *shyama* which are neither black nor white, but when sold as they are, they look black and when decorticated, they appear white or pinkish white. In the markets of Kanpur, U.P. State in India, the roots of *Operculina turpethum* are sold with the name of *vidhari* or *Vrdhdharu*, which is not mentioned by either *Charaka* or *Sushruta*. Recently, as reported by Dr K. Nishteswar, roots of *Ipomoea triloba* are also sold with the name of *Trivrt* in the markets of Gujarat.¹⁵

3. **Controversy of few drugs-** due to lack of understanding some drugs are in controversies. For example:
 - a. In 2 types of *trivrt* i.e. pinkish and black variety of root. There is a controversy that if both have common source i.e. *Operculum turpethum* (Linn) Silva Manso, Syn. *Ipomoea turpethum* R. Br. (Fam. Convolvulaceae) then, how it happens to procure two types of roots having different colours and different pharmacological actions with difference in the intensity of the action of purgation. Either they should

be from different genera or different species or should be from an entirely different plant.¹⁵

It is well reported and also observed that, the root bark of *Operculina turpethum* (Linn) Silva Manso, when dried under the sun becomes white and when shade dried becomes black. This point is to be observed very carefully because, in the original text, Caraka nowhere mentioned two plant species but mentioned two varieties of roots, which is supported by the word “*Tasyah Mulam Dvividham*” i.e. its root is of two types using singular form for the plant. Hence, the concept of sun-dried and shade-dried roots, stands good and it is a known fact that factors like storage, preservation, exposure to heat or sunlight bring many changes in the chemical constituents of plant parts but, till date no research work has been conducted in differentiating the constituents of differently dried root parts, which may bring some light into the subject.¹⁵

But, at the lapse of time, by the time of lexicographers like Shodhala, Dhanvantari and Bhaavamishra, the other variety “*Shyama*” intruded the market or trade and new plant species having better or equivalent laxative or purgative action attracted the authors. Some new synonyms like *Paalindi*, *Kaali*, *Masuravidalaa* and *Kaalamesikaa* are attributed to the black

variety of *Trivrt* i.e. *shyama* and this variety is distinctly separated as a new variety, while disregarding the opinion of Charaka or Sushruta who never considered two plant species but explored only two varieties of roots. Then, some species of *Ipomoea* which resembles the morphological synonyms is to be searched for. In this prolonged process, many modern authors suggested different species, depending upon the traditional utility and morphological similarities. One of such plants *Ipomoea petaloidea* can be equated with *Shyama*, basing on the synonyms. The word *Paalindi* indicates the flowers; the upper part of the sepals is divided and resembles *paali* i.e ear lobe. *Kaali* and *Kalameahika* denote the color of the flowers as bluish black where as that of *shveta Trivrt* (*Operculina* sp) appear pure white. *Masuravidala* means the two separated parts of the lens shaped lentil seed and the leaves of *Ipomoea pes-caprae* (Linn.) Sweet, exactly resemble them. Hence, some authors considered this species also as *Shyama*.¹⁵

Then, coming to the opinions of different modern day authors, Bapalal has suggested to use Jalap i.e. *Exogoneum purge*, Benth. As the white variety of *Trivrt*, well developed *Trivrt* as *Maha Shyama* and *O. turpethum* as *Shyama*. Sharma, P.V accepted *O. Turpethum* as

Trivrt and *Ipomoea petaloidea Chois* as *Shyama*. Regarding *Maha Shyama*, he has suggested two possibilities. It is either some *Ipomoea* or *Euphorbia* species.¹⁵

But according to instructions of Charaka, *Trivrt* is only one plant i.e. *Operculina turpethum* (Linn.) Silva Manso and should use the roots of the same plant. If pinkish roots is needed to be procured, it should be dried in sunlight and for black roots they may be dried in shade. This practice can be continued till a final conclusion, basing on the phyto-chemical, pharmacological and therapeutic works and till that time, it is better not to confuse with the names and traditional practice of using different plant species for purgation can be continued.¹⁵

b. ***Tilvaka as lodhra***: since one of the synonym of *tilvaka* is *lodhra* also where as *lodhra* is considered as *sthambaka*.

4. **Complexity of preparations** – Same of the preparations are not in practice due to long and complicated procedures and also due to above said reasons. For example: - collection of *madanaphala* in *pushya* and *ashwini yugma nakshatra* is very rarely in practice and the method of its *shodana* is also not completely followed.
5. **Contraindications of shodana-** even though *shodana* is praised for its commendable actions but also has its own

limitations as it is contraindicated in some of the conditions.

OPPURTUNITIES OF KALPA STHANA

1. Opportunities at clinical level:-

Scope for the Formulation of many new recipes:

As in *kalpa sthana*, 600 formulations have been explained, but the effect of these drugs vary, depending upon their habitat, collection, storage and on patients's

deha (physique), *doshas*, *prakruti* (constitution),

Vaya (age), *Bala* (strength), *Agni* (power of digestion and

metabolism), *Bhakti* (liking of particular type of recipe), *Satmya* (wholesomeness).

Therefore, the recipes based on their permutations and combination are innumerable and it is not possible to describe them all so only few of these recipes which are neither too brief nor too elaborate is described in these chapters. On the basis of this description the intelligent physician can formulate many other recipes to suit the exact requirement of his patient.¹⁶

2. Opportunities at pharmacy level:-

Special Preparations for people with sedentary life style:

In 5th chapter of *kalpa sthana* i. e. *vatsaka*, Total eighteen formulations for *vamana* are prepared in different medium like decoction of various

drugs, water and *krasara* which are beneficial for delicate persons. Other examples like *Trivrt*: Though, many plant drugs are available which are useful for purgation, *trivrt* is considered the best as it causes little or very less side effects while causing less spasmodic pain during the process of purgation. Etc.

3. Opportunities at research level:-

Wide scope for research: there is a wide scope of research for the researchers in every fields including literary field, pharmacological research, drug research, and therapeutic/clinical research etc. for example

In literary research: in *kalpa Sthana* there are many *shlokas*, and words which need a through studies on them to unlock the hidden meanings to understand the Sthana properly. This will help to eradicate the weaknesses and threats.

In pharmacological research: Eighteen formulations, using eighteen drugs along with the powdered root of *Trivrt* which can be used along with cow's urine as a liquid vehicle are mentioned. All the plant drugs that are used here are appetizers, stimulants and they relieve spasm as well. The role of cow's urine in this context is quite reasonable in the sense that, it acts as

a stimulant and is capable of modulating the action of any drug taken along with it positively. That itself is capable of doing mild laxation and acts as an anti-toxic drug.¹⁵

In drug research: identification of *saptala* and *shankhini* etc.

In clinical research: validation and updating the formulations could be done.

THREATS OF KALPA STHANA

1. Extinction of unidentified drugs: because of following reasons-

- a. If the drugs remain unidentified and unused for long then there may be the chances of extinction in future and thereby threat.
- b. Due to non-availability and substitution of similar drugs in pharmacies and clinical practice.

2. Extinction of valuable preparations: As there are so many different type of pharmaceutical preparations given in the *kalpa sthana*, due to impracticality or lack of utilization of them in practice, chances of extinction of classical formulations are more. Some of the reasons are:

- a. **Industrialization/ modernequipment and sedentary life style** - are the

major issues for the modifications of classical preparations. Wherein the procedures are shortened to make it economical, for time management, and for the production in huge quantity.

- b. **Lack of proper knowledge and understanding** - Due to physician's Lack of proper knowledge and understanding about the utility of various preparations some of the drugs and formulations are untouched.
- c. **Due to lack of updating and validation of the contents** - some of the physicians fear to use some formulations or drugs to carry out procedures with the view of toxicity.

DISCUSSION

Basically SWOT analysis is done in commercial field before beginning with a new business in order to explore the business successfully without any obstacles. Similarly here an attempt has

been made to apply the same for *kalpa Sthana* to explore it more in this developing scientific world by analyzing its strength, weakness, opportunity, and threats.

DISCUSSION ON STRENGTH OF *KALPA STHANA*

As there are variations with regard to place, time, preparations and processing's of drug, it is not possible to prescribe one drug which might be universally applicable. Moreover the drugs may not be available everywhere. Hence a number of formulations of *Madanaphala* are described wherein the physician may select one out of them which is suitable for the person.

Further the number six hundred for *vamana* and *virecana* preparations is

not restrictive, it is only for guidance to brilliant scholars to formulate more while it would serve as standard for average physician.

Thus, the first chapter *Madanakalpa* throws the light on complete *kalpa sthana* and also deals with the basic concepts to understand the habitat, collection and storage of raw drugs and pharmacodynamics of *vamana* and *virecana* drugs.

DISCUSSION ON WEAKNESS OF *KALPA STHANA*

Due to the above said weaknesses, in subsequent years, the treatise has not incorporated any changes in its format, though it was enriched from time to time with new interpretations and infusions of new knowledge through redactions and

commentaries. So a thorough revision on *kalpa Sthana* is in needed now and weaknesses should be taken up as challenges by the upcoming research scholars to convert them into strengths.

SWOT ANALYSIS: *KALPA STHANA* OF CHARAKA SAMHITA

DISCUSSION ON OPPORTUNITIES OF *KALPA STHANA*

As there are wide range of opportunities to Ayurveda physicians, research scholars especially in *siddhanta*, *dravya guna* and *baishjya* and *chikitsa* (panchkarma) field.

For understanding of *kalpa sthana* at under graduate level, a separate practical classes

on *Kalpa sthana* could be adopted. Which would be a great contribution to *kalpa sthana* and also to maintain its integrity. At the same time it would be a boon to a passing out UG students to practice Ayurveda confidently and successfully.

DISCUSSION ON THREATS OF *KALPA STHANA*

Threats originates when weaknesses are not checked for long, so if strengths, weaknesses and opportunities

are properly monitored then there would not be any place for the threats.

CONCLUSION

Kalpa sthana is one of key treasure in charaka samhita to unlock the applications of *chikitsa sthana*. Hence it is a pick hour to do SWOT analysis of *kalpa*

sthana to bring it to lime light and make it more applicable in medical field so as to get more benefits to the public as well as to the physician.

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