

Applied study of Ushna and Sheeta Gunas w.s.r. to Amlapitta

SANTOSH MANE * MAHESH VYAS ** R. R. DWIVEDI ***

Institute for Post Graduate Teaching and Research in Ayurveda, Gujarat Ayurved University, Jamnagar.

ABSTRACT : The present research work consists of conceptual, pharmacognostical, physico-chemical and pharmacological studies along with therapeutic (clinical) effects of the *Ushna* and *Sheeta Guna Dravya* in patients of *Amlapitta*. The properties *Ushna* and *Sheeta Gunas* are studied in all above parameters to find out some objectivity. On all these parameters it has been found that characteristics of *Ushna* and *Sheeta Gunas* are differentiable especially in clinical study in 185 *Amlapitta* patients. Patients having *Drava Guna* of *Pitta* dominancy were found to be significantly benefitted by *Ushna Guna* containing *dravyas*. And patients having *Ushna Guna* dominancy when treated with *Sheeta Guna Dravyas* were also found to be significantly benefitted. Hence it is found to be positively proved that there are few parameters at physico-chemical, pharmacological and also at therapeutic levels on which *Sheeta* and *Ushna Guna* can be objectively assessed. The study contains all these facts and values in figures.

Key words : *Dravya, Ushna, Sheeta, Guna, Amlapitta.*

INTRODUCTION

Ayurveda is the out come of the knowledge and vast experiences of the ancient Indian scientists and philosophers of many millennia. The universe is as much a subject of curiosity as of research also.

Ayurveda has adopted the contemporarily relevant *Sankhyadarshana* - an Indian school of philosophy and stages from *Avyakta* to *Panchatanmâtras* i.e. *Sukshma mahabhutas* of the evolution. But after the stage of formation of *Panchamahabhutas* which are evolved from *Panchatanmâtras*, *Ayurveda* has formulated its own science and concerned basic principles the stages from *Avyakta* up to the *Panchatanmatras* have no role to play in treatment of disease. Hence these stages were then dropped and *Panchamahabhutas* were accepted as basis¹.

Dravya is able to perform its *Karma* due to the *Gunas* only². From the point of view generating *Karma* the *Gunas* are having much more importance than *Dravya*³. *Gunas* acts as a medium for understanding the peculiarities of *Dravya*. If one can try to understand only one *Guna* with its all dimensions then it will play a leading role in understanding other *Gunas*.

Ayurveda being a clinical science and concepts embedded in it have a practical utility. The disease *Amlapitta*, which is the out come of faulty dietetic habits, with disturbed function of *Agni* especially due to *Ushna* & *Sheeta* *Gunas* is the valuable topic of concern in the present era.

Agni, the main culprit of any disease⁴, is also the same for the disease *Amlapitta*. The *Agni* which resides in *Pitta* is controlled by *Jala Mahabhuta* as its opponent unless it will burn the *Ashraya* itself. So the *Pitta* is having property like *Sneha*⁵. *Chakrapanidatta* while commenting on *Jwara Cikitsa* has explained same thing that *Pitta* is of two types i.e. *Sadravapitta* and *Nirdravapitta*⁶. This *Dravata* is the nothing but the involvement of *Jala* in the formation of *Pitta*.

In the disease *Amlapitta*, when these two components i.e. *Jala* and *Agni* gets disturbed due to *Nidanas*, leads to different kind of manifestation of the disease. The one in which the *Pitta* is in the state of *Atyaktadvata* and second is *Tyaktadravavstha*. The first is having *Agnihinatâ* and second is having *Agni-ulbanta*⁷.

Present clinical study was planned to evaluate the practical approach of the *Ushna* and *Sheeta* *Gunas* in the disease *Amlapitta*. This study is neither merely a clinical study nor to assess merely the drug action. The disease *Amlapitta* has been selected for the clinical trials because it presents two type of manifestation depending upon the involvement of *Agni* (*Ushnatgunodriktata*) and *Jala* (*Sheetagunodriktatâ*) *Mahabhuta*.

Clinical trail was carried out in 185 patients out of which 131 patients completed the treatment. The criteria for selection was the signs and symptoms of *Ushnagunadhikya* and *Sheetagunadhikya* *Amlapitta*, irrespective of sex, religion etc.

The patients were divided in two groups according to their complaints of *Sheetagunadhikyatâ* or *Ushnaagunadhikyata* in Group 'A' and Group 'B'

* Lecturer, Dept. of Basic Principles, Akhandanand Govt. Ayurveda College, Ahmedabad.

Email : vdsantoshmane@yahoo.com

** Reader, Dept. of Basic Principles, I.P.G.T. & R.A.

*** Head, Dept. of Basic Principles, I.P.G.T. & R.A.

respectively. Group 'A' was treated with *Ushnagunayukta* Drugs and in Group 'B' *Sheetagunayukta* Drugs were administered. These two groups were then again randomly sub-divided into three groups each. In group 'A' total 95 patients were treated, for duration of 4 weeks. In group 'B' total 91 patients were treated, for duration of 4 week also. The results were analyzed on the basis of symptomatic relief.

Aims and Objectives :

- ♦ To assess the role of *Ushna* and *Sheeta* Guna as in etio-pathogenesis of *Amlapitta*.
- ♦ Therapeutic or clinical assessment of the *Sheeta* and *Ushna* Gunas in selected drug substances.

MATERIAL & METHODS

Conceptual study :

For this study, the basic and conceptual materials were collected from the Ayurvedic classics viz. *Brhatrayi* and *Laghutrayi* with their available commentaries. *Sarvadarshana Sangraha*, *Tarka Sangraha* as well as various reference books of Philosophy to study the concept of *Ushna & Sheeta Guna* as *Ayurvedic* point of view and also its philosophical aspects. For the disease review also above said material has been used.

Clinical study :

The clinical study was conducted in two groups. In Group A, *Shweta Chitraka*, *Ativisha* and *Yavani* (*Ushna* drugs) were used for treatment. In group 'B' *Gokshura*, *Musta* and *Usheera* (*Sheeta* drugs) were used for the treatment. The patients were randomly selected from the I.P.D. and O.P.D. of Basic principles department of the hospital of the institute of post graduate teaching and research in Ayurveda, Jamnagar.

Inclusion criteria :

- ♦ The patients having the symptoms of *Sheetagunadhikya Amlapitta* (*Atyaktadravastha* with *Agniguna-hinata*) and *Ushnagunadhikya Amlapitta* (*Tyaktadravastha* with *Agnigunolbanata*).
- ♦ The patients between the age group of 16-60 were included.
- ♦ Patients were selected randomly irrespective of class, creed, and religion, sex et. al
- ♦ All those patients willing to participate in the study after an oral consent were selected.

Exclusion criteria :

- ♦ Patients suffering from chronic systemic diseases like the *Madhumeha*, *Rajayakshama*, *Kushtha* etc were excluded from this study.
- ♦ The patients having symptoms of *Agni Pradhana Amlapitta* (*Tyaktadravastha* with *Tejogunolbanta*).
- ♦ The patients of severe GIT disturbance and required emergency management were also excluded from the study.
- ♦ The patients of less than 16 and more than 60 years of age have not been taken for the current study.

Drug delivery and Duration :

In this study, the effect of drugs having *Ushna Guna* on *Jala Mahabhuta* predominant *Amlapitta* was evaluated. Their dose & administration are listed below in table no. 2 & 3.

Assessment of Therapy :

Criteria for Assessment : Drug was given to the patients weekly and the changes in subjective parameters were recorded at each week interval. Total effect of therapy in each patient was evaluated after completion of treatment.

Statistical analysis :

The information gathered on the basis of above observations was subjected to statistical analysis. Students Paired 't' test was applied for the objective parameters like hematological and biochemical investigations. The results were interpreted at $p < 0.05$, $p < 0.01$ and $p < 0.001$ significance levels. The obtained results were interpreted as:

- ♦ Insignificant : $p < 0.05$
- ♦ Significant : $p < 0.01$
- ♦ Highly Significant : $p < 0.001$

OBSERVATION & RESULTS

Maximum patients were from age group 30-45 years i.e. 46.49% while 32.97% in 15-30 years and 20.54 % in 45-60 years. 64.86 % of patients were male. Maximum number of patients were worker i.e. 38.38 %; patients in service group were 12.43 % and 31.89% of patients were house wife. Most of the patients had addiction to tobacco i.e. 44.32%. Most of the patients (43.78%) were taking *Katu Rasapradhana Aahara*.

The 56.21% of the patients were habituated towards day time sleep. Disturbed night sleep was reported by maximum number of patients i.e. 55.68%. *Vishamagni* was assessed in maximum i.e. 43.75% of patients whereas *Tikshnagni* in 30.81% of patients. *Vata-Pittaja Prakruti* dominated the series with 35.67%. Maximum number of patients were having the chronicity of *Amlapitta* >1 years i.e. 68.65 %.

Amlodgara, *Utklesha* and *Avipaka* were seen in maximum number of patients i.e. 100 %, 98.94% and 97.87% respectively, followed by *Gurukoshthta* (91.49%), *Gaurava* (73.40%) and *Aruchi* (70.21%) in group 'A'. In group 'B' *Urovidaha*, *Kanthadaha* and *Katu/Tiktodgara* were seen in maximum number of patients i.e. 100 %, 94.50% and 81.32 % respectively.

Effect of therapy :

In group 'A' as well as group 'B', significant decrease was observed in all symptoms, which is statistically highly significant.

Though the data obtained in clinical study shows that there is an increase or decrease in some of the parameters, but none of the result is statistically significant. However, some of the observation which shows unidirectional changes (all the three drugs showing either increase or decrease) are presented here and it may be considered as pattern or trend of that particular group.

In group 'A', a statistically non significant decrease was observed in Sr. Uric acid, Sr. Alkaline

Phosphatase levels and Lymphocyte count in *Ushnagunayukta* drugs treated group. Whereas a statistically non significant increase was found in Sr. Protein, Sr. Albumin, TLC, Neutrophils, Monocyte count and PCV levels (Table-4). In group 'B', increase in FBS, Sr. Triglycerides and Sr. VLDL levels were observed in *Sheetagunayukta* drugs treated group, which is statistically non-significant. A statistically non significant decrease was seen in Sr. HDL level too (Table-5).

Overall effect of therapy in Group A :

In this study total 66 patients having *Sheetagunadhikyata* (Jala-dominance) were treated with *Ushna* drugs and results obtained on over all effect of therapy are encouraging. Marked improvement was observed in 39.39% of patients, moderate improvement in 30.30% of patients where as 24.24% of patient showed mild improvement while remaining 6.07% showed no results (Table-6).

Overall effect of therapy in Group B :

In this study total 65 patients having *Ushnagunadhikyata* (Agni-dominance) were treated with *Sheeta* drugs and results obtained on over all effect of therapy in this group are also satisfactory. Marked improvement was observed in 33.85% of patients, moderate improvement in 20.00% of patients where as 44.61% of patient showed mild improvement while remaining 01.54 % showed no results (Table-7).

TABLE NO. 1 : GROUP WISE DISTRIBUTION OF 185 PATIENTS :

Patients	G. A		G. B		Total	%
	n	%	n	%		
Registered	94	50.81	91	49.19	185	100.00
Completed	66	35.67	65	35.14	131	70.81
LAMA	28	15.14	26	14.05	54	29.19

TABLE NO. 2 : USHNA GUNA ON JALA MAHABHOOTA (SHEETAGUNADHIKYA) PREDOMINANT AMLAPITTA (GROUP A) :

Name	Latin Name	Dose
Shweta-Chitraka	<i>Plumbago zeylenica</i> . Linn.	2 gm BD
Ativisha	<i>Aconitum hetrophillum</i> Wall.	3 gm BD
Yavaneer	<i>Trachyspermum ammi</i> . Linn.	3 gm BD

TABLE NO. 3 : SHEETA GUNA ON AGNI MAHABHOOTA (USHNAGUNADHIKYA) PREDOMINANT AMLAPITTA (GROUP B) :

Name	Latin Name	Dose
Gokshura	<i>Tribulus terrestris</i> Linn.	3g BD
Musta	<i>Cyperus rotundus</i> Linn.	3g BD
Usheer	<i>Vetiveria zizanioides</i> (Linn.) Nash	3g BD

Duration : All the above six drugs were continued for four weeks.

TABLE NO. 4 : EFFECT OF USHNA DRUGS ON HEMATOLOGICAL AND BIOCHEMICAL PARAMETERS :

Parameter	Name of Drugs					
	Chitraka		Yavane		Ativisa	
	Mean± SEM	% Change	Mean± SEM	% Change	Mean± SEM	% Change
LDL	00.45 ± 04.55	00.40↑	03.27 ± 07.16	02.98↑	06.26 ± 05.44	05.92↑
Sr. Uric acid	00.18 ± 0.22	04.17↓	00.05 ± 00.23	01.01↓	00.39 ± 00.30	08.40↓
Sr. Alkaline Phosphatase	15.98 ± 3.33	08.17↓	13.82 ± 02.94	01.93↓	18.81 ± 04.10	04.07↓
Sr. proteins	00.10 ± 00.09	01.38↑	00.05 ± 00.09	00.64↑	00.07 ± 00.07	01.03↑
Sr. Albumin	00.14 ± 00.08	03.42↑	00.06 ± 00.08	01.36↑	00.03 ± 00.07	00.80↑
TLC	308.70±313.21	04.55↑	154.50±345.27	02.42↑	042.86±422.67	00.65↑
Neutrophil	00.78 ± 01.22	01.36↑	02.40 ± 01.81	04.33↑	01.38 ± 01.72	02.39↑
Lymphocyte	03.13 ± 02.38	08.08↓	02.45 ± 01.75	06.49↓	01.33 ± 01.73	03.74↓
Monocyte	00.09 ± 0.17	02.98↑	00.05 ± 0.19	17.18↑	00.05 ± 0.16	01.69↑
PCV	00.60 ± 00.51	01.50↑	00.36 ± 00.67	00.89↑	00.35 ± 00.47	00.85↑

TABLE NO. 5 : EFFECT OF SHEETA DRUGS ON BIOCHEMICAL PARAMETERS :

Parameter	Name of Drugs					
	Usheer		Gokshura		Musta	
	Mean± SEM	% Change	Mean± SEM	% Change	Mean± SEM	% Change
FBS	91.71±02.83	02.95↑	02.39± 03.07	02.60↑	01.09 ± 03.79	01.18↑
Sr. Cholesterol	05.42 ± 06.01	02.73↓	03.66 ± 08.82	03.03↓	03.43 ± 05.67	01.84↓
Sr. HDL	01.76 ± 08.77	01.42↑	03.66 ± 08.82	03.03↑	07.34 ± 16.78	05.42↑
Sr. VLDL	00.44 ± 01.76	01.80↑	00.75 ± 01.79	03.11↑	01.31 ± 03.11	04.85↑
Sr. Creatinine	00.005±00.02	00.51↑	00.02 ± 00.02	02.02↑	00.03 ± 00.02	04.47↑

TABLE NO. 6 : OVERALL EFFECT OF USHNA DRUGS THERAPY ON 66 PATIENTS OF AMLAPITTA :

Results	Chitrak		Ativisha		Yavane		Total	
	n	%	n	%	n	%	n	%
Mark.I	12	52.17	07	33.33	07	31.82	26	39.39
Mod.I	04	17.39	07	33.33	09	40.91	20	30.30
Mild.I	06	26.09	04	19.05	06	27.27	16	24.24
Unchanged	01	04.35	03	14.29	00	00.00	04	06.07
Total patients	23	34.85	21	31.82	22	33.33	66	100.0

n- number of patients, Mark.I -Markedly Improved, Mod. I- Moderately Improved, Mild. I -Mild Improved

TABLE NO. 7 : OVERALL EFFECT OF SHEETA DRUGS THERAPY ON 65 PATIENTS OF AMLAPITTA :

Results	Gokshur		Musta		Usheer		Total	
	n	%	n	%	n	%	n	%
Mark.I	08	38.10	07	34.44	07	33.33	22	33.85
Mod.I	02	09.52	08	34.78	03	14.29	13	20.00
Mild.I	10	47.62	08	34.78	11	52.38	29	44.61
Unchanged	01	04.76	00	00.00	00	00.00	01	01.54
Total patients	21	32.31	23	35.38	21	32.31	65	100.0

n- number of patients, Mark.I -MMarkedly Improved, Mod. I- Moderately Improved, Mild. I -Mild Improved

FIG 1 : EFFECT OF USHNA DRUGS ON SHEETAGUNADHIKYA AMLAPITTA IN GROUP A :

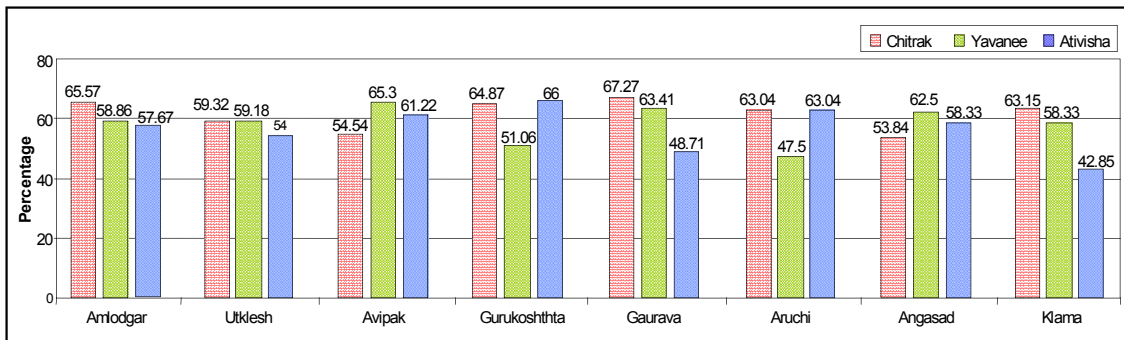


FIG 2 : EFFECT OF SHEETA DRIGS ON USHNA GUNADHIKYA AMLAPITTA IN GROUP B :

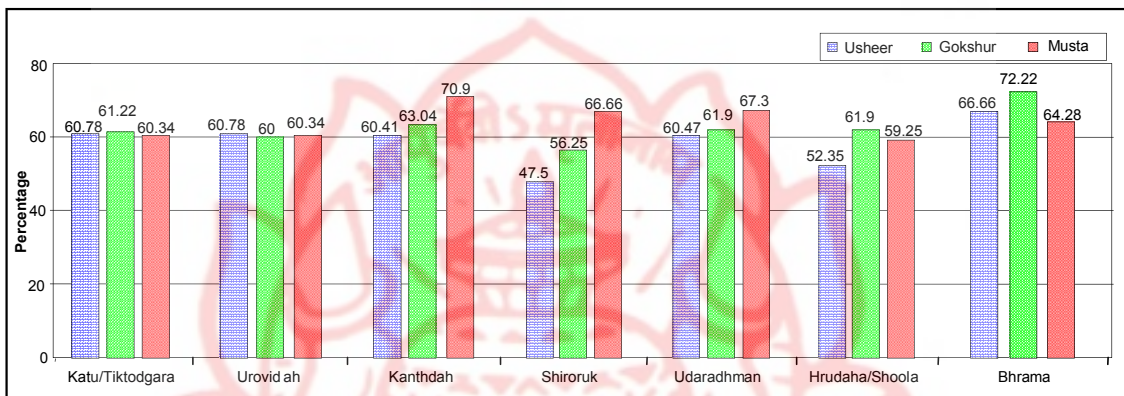
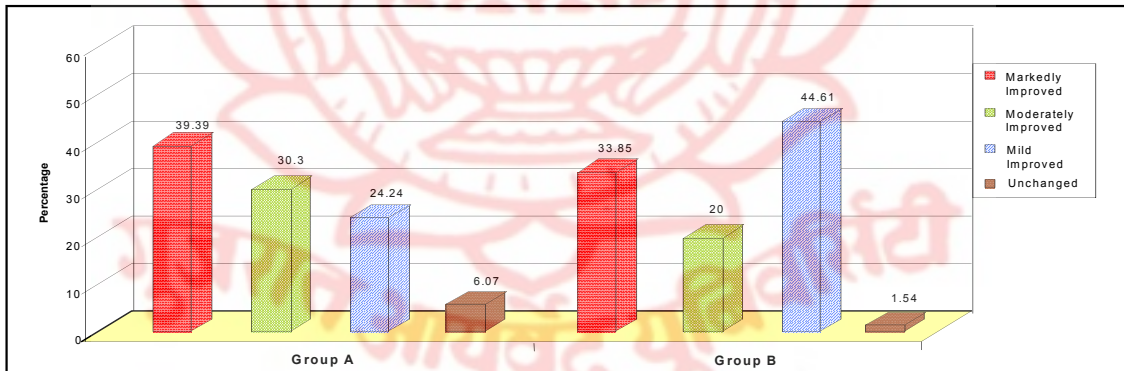


FIG 3 : OVER ALL EFFECT OF THERAPY :



DISCUSSION

Pittadosha (Pacaka) plays an important role in the digestion with the help of other two *Doshas* i.e. *Kapha (Kledaka)* and *Vata (Samana)*. The properties of *Pitta* as described by *Charakacharya* as- “*Pittam Sasnehatiktoshnam.....*” These properties of *Pitta* can be attributed to the *Panchamahabhootas* as-*Pruthvee-Visra, Jala-Sneha, Drava* and *Sara, Teja-Ushna* and *Tikshna, Vayu-Laghu, Aakash- Laghu*.

These *Panchamahabhootas* can be grossly divided into two categories *Aakash, Vayu* on one side and *Pruthvee, Jala* on other side, where as *Teja* is an intermittent *Mahabhoota*. According to diet and regimen, the similar *Gunas* of these increases and opposite *Gunas* decreases. According to process of evolution of *Mahabhootas, Jala* gets evolved from *Teja*. Since, *Teja* is transformed into *Jala*, many properties of *Jala* are present in *Teja*. When, *Teja* increases in the body due to specifically

Ushna Guna predominant hetus, it results in to symptoms like burning sensation in throat (*Kanthadaha*), Chest (*Urovidana*) etc. These symptoms are seen as *Pitta* lacks *Drava Guna* which is a *Guna* of *Jala Mahabhoota*. Hence, in such a type of manifestation the *Guna* which is opposite to that of *Teja / Ushna Guna* is required for the proper treatment. *Sheeta Guna* is exact opposite to *Ushna Guna*. Hence, the drugs like *Gokshura*, *Musta* and *Usheera* which are known to have *Sheeta* property has been selected in present study to assess their effect specifically on the *Ushna Guna*.

On the other hand, if *Atymlasevan*, *Atyadhika Drava Sevan* etc. are the causative factors for the provocation of *Agni* they lead to increase in *Drava Guna* of *Pitta*, then such a type of *Pitta* is unable to perform its normal function of digestion resulting into manifestation of symptoms like *Avipaka*, *Amlodgâra* etc. In this particular condition drugs like *Chitrak*, *Ativisha* and *Yavane* having *Ushna* property have been used in this study to assess their effect on *Sheetagna*. In this study after evaluation of specific *Nidanas* strict advices were given to the patients regarding food articles on the line of *Ushna* and *Sheeta Guna* dominance.

An overall view of the biochemical and hematological values indicate towards two basic *Siddhantas* of *Ayurveda*. Firstly *Samaosha Samagnih Cha.....(Su.Su.15/41)*. The test drugs did not cause statistically significant deviation in normal parameters but helped to maintain them within normal limits. Secondly *Vruddhi Samanaih Sarvesham..... (A.S.Su 1/23)*. To understand this concept it is to be noted that there is a mild increase in FBS, Triglycerides and VLDL levels of

group 'B' patients. This is due to the resultant effect of *Sheetagnatmaka Dravyas*. Hence, it can be said that the above parameters may belong to *Kapha Varga*. Similarly for the increment of Sr. Albumin, Sr. Proteins and PCV, *Ushna Guna* is responsible. So these parameters can be considered as representative of *Pitta Varga*.

CONCLUSION

A highly significant result was observed in both the group indicates the applied concept of *Gunas* plays an important role in the management of disease.

There was difference in hematological and biochemical values, these changes are non-significant still it would have been more appreciable if they were considered separately for an indicative of status of health.

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हिन्दी सारांश

उष्ण एवं शीत गुण का अम्लपित्त के सन्दर्भ में एक प्रायोगिक अध्ययन

संतोष माने, महेश व्यास एवं आर. आर. द्विवेदी

पंचमहाभूत आयुर्वेद चिकित्सा पद्धति का आधार है। पंचमहाभूतों के विविध संयोगों का प्रयोग युक्तिपूर्वक करने से व्याधियों से मुक्ति प्राप्त होती है। पंचमहाभूतों का विकार, द्रव्य का उपयोग बहुतायत में होता है। द्रव्य, गुणों के द्वारा कार्य करता है जो कि वास्तव में महाभूतों के ही गुण होते हैं। गुणों का विश्लेषण, वैज्ञानिक आंकलन तथा मूल्यांकन आज भी आयुर्वेदिक चिकित्सकों के लिए चुनौती है। अनेक गुणों के होने पर भी शीत एवं उष्ण गुण का चिकित्सा में विशेष उपयोग होता है। शीत एवं उष्ण गुणों के व्यवहारिक ज्ञान के लिए ही यह अध्ययन किया गया है। इन गुणों के आंकलन एवं मूल्यांकन के लिए अम्लपित्त व्याधि ग्रस्त रोगियों का चयन किया गया। इस प्रकार शीत एवं उष्ण गुणों को सरलता से समझने के लिए तथा उन्हें मापदण्ड प्रदान करने के लिए इस अध्ययन में प्रयास किया गया है। अध्ययन से यह ज्ञात होता है कि शीत एवं उष्ण गुणों के मूल्यांकन हेतु चिकित्सकीय स्तर पर कुछ मापदण्ड बनाये जा सकते हैं। इन सभी विषयों का विस्तृत विवेचन इस शोध पत्र में सांख्यिकी शास्त्र की मदद से प्रस्तुत किया गया है।

