

ISSN 0976 - 8300

# विश्व आयुर्वेद परिषद् पत्रिका

वर्ष-10, अंक-3-4

विक्रम संवत् 2070

चैत्र-वैशाख

मार्च-अप्रैल 2013



उशीर

**Journal of Vishwa Ayurved Parishad**

वसन्त ऋतु

# Instructions to Authors

The Journal of Vishwa Ayurveda Parishad (JVAP) is the official journal of Vishwa Ayurveda Parishad. The journal accepts original work in the field of Ayurveda and related topics. Now the journal is available online at [www.vishwaayurveda.org](http://www.vishwaayurveda.org).

Only original contributions in various areas of study related to Ayurveda such as literary, fundamental drug research, review articles, clinical research and book review etc. are accepted.

The manuscripts should be typed in MS Word format double space, character Kruti Dev 010 for Hindi & Times New Roman for English on one side of paper with pages numbered consecutively. Typing sheet should be of A4 size and have a margin of 2 cm (all side). The paper should be sent to the editor by speed post on the below address -

Author can send one copy of paper by e-mail on [vapjournal@rediffmail.com](mailto:vapjournal@rediffmail.com), [dwivedikk@rediffmail.com](mailto:dwivedikk@rediffmail.com). Each article should preferably be divided into following broad sections

- (i) Abstract,
- (ii) Key words (maximum 5),
- (iii) Introduction,
- (iv) Methods and Materials,
- (v) Result,
- (vi) Discussion,
- (vii) Conclusion,
- (viii) Acknowledgement and References (including Electronic Sources, Web site etc).

The article should be of minimum 800 words and maximum 2000 words (for article) and 3000 words (for literary research).

The authors are advised to give their names, in the form in which they want them to appear in print just after the title. The authors must write their full name, designation, official address, permanent address with pin code, phone/mobile number and e-mail address in last of paper.

The medium of article is English, Sanskrit or Hindi. All pages (except the title page) should be numbered consecutively in Arabic numerals (such as 2, 3, 4,.....) at the centre top of each page. Received articles will be evaluated by three referees before publication.

The name of the authors mentioned in references or bibliography are to be put in following way surname then first and second name. It should be in an alphabetical order. Maximum two names will be accepted in one article as contributor.

Illustrations, photographs, tables, maps, graphs, should be given only when they are necessary. They should be numbered in Arabic numerals. Tables must be typed on separate sheets. Graphs {**MS EXCEL format**}, Photographs (JPEG or GIF **Format** with high resolution)

The contributors are requested to make use of Diacritical marks while preparing the manuscript of their research articles particularly in transliterating Sanskrit/Hindi words in English language.

**Covering Letter:** The covering letter should be addressed to "The Chief Editor- Journal of Vishwa Ayurveda Parishad" mentioning the details about the submission of paper viz. Title of the manuscript, names of author(s), address & E. mail add. of corresponding author **and** Signed by all contributors.

**Undertaking by Authors & Copy right Transfer:** These documents format will be supplied by editorial side to the corresponding author after the decision of acceptance of the paper.

Information regarding the acceptance of the paper will be mailed to the corresponding author as soon as possible.

**Dr. K.K. Dwivedi**

N-1/66 F-R-2, Surya Ganga Vihar Colony,  
Samneghat, Lanka, Varanasi-221005  
Mob. No. 09336913142

**Prof. S.P. Mishra**

**Chief Editor**

The Journal of Vishwa Ayurveda Parishad (JVAP)



# विश्व आयुर्वेद परिषद् पत्रिका

## Journal of Vishwa Ayurved Parishad

वर्ष- 10, अंक- 3-4

चैत्र-वैशाख

मार्च-अप्रैल 2013

<b>संरक्षक</b>	<b>1. सम्पादकीय</b>	2
<ul style="list-style-type: none"> <li>डॉ० रमन सिंह (मुख्य मंत्री, छत्तीसगढ़)</li> <li>प्रो० योगेश चन्द्र मिश्र राष्ट्रीय अध्यक्ष</li> </ul>	<b>2. Retrospective Analysis of efficacy of various ayurvedic treatment procedures in arthritis patients at SG Patel Ayurveda Hospital</b>	Dr. ARV Murthy Dr. Yogesh Deole Dr. Dilip Jani Dr. Dharia Patel
<b>प्रधान सम्पादक</b>	<b>3. Chronic cervicitis Viz-A-Viz Kaphaj Yonivyapada</b>	Vijay Lakshmi Neelam
<ul style="list-style-type: none"> <li>प्रो० सत्येन्द्र प्रसाद मिश्र</li> </ul>	<b>4. Pharmaceutical and shelf life study of single drugs (Haritaki, Vibhitaki, Amalaki Churna) and Multiple ingredients (Triphala Churna)</b>	Niranjan Sonkar C.B. Jha Alka Agarwal
<b>सम्पादक</b>	<b>5. Hrivera the multi purpose herb</b>	Dr. G.V. Karunakar
<ul style="list-style-type: none"> <li>डॉ० कमलेश कुमार द्विवेदी</li> </ul>	<b>6. चरकावली (Charakawali) प्रथम सूत्र सोपान</b>	डॉ. रामतीर्थ शर्मा
<b>सम्पादक मण्डल</b>	<b>7. Ayurvedic view of Aetiopathogenesis of Madhumeha (Diabetes Mellitus) and it's relation with Medorog (Obesity)</b>	Dr. Ramesh Kant Dubey
<ul style="list-style-type: none"> <li>डॉ० पुनीत कुमार मिश्र</li> <li>डॉ० अजय कुमार पाण्डेय</li> <li>डॉ० विजय कुमार राय</li> <li>डॉ० संजय कुमार त्रिपाठी</li> </ul>	<b>8. सन्तर्पणजन्य प्रमेह हेतुविचार-वर्तमान परिप्रेक्ष्य में विश्लेषणात्मक विवेचन</b>	वैद्य प्रदीप शिवराम पवार वैद्य असित कुमार पांजा प्रो. ओम् प्रकाश उपाध्याय
<b>अक्षर संयोजन</b>	<b>9. An applied Anatomy of Atma</b>	Dr. Prem Prakash Gangwar
<ul style="list-style-type: none"> <li>प्रशान्तो चटर्जी</li> </ul>	<b>10. Standardization and quality control of Ayurvedic formulations</b>	Dr. Gopal Krishna Sharma
<b>प्रबन्ध सम्पादक</b>	<b>11. "Integration of modern and Ayurvedic medical science-A boon or curse?"</b>	Nitin V.
<ul style="list-style-type: none"> <li>जितेन्द्र अग्रवाल</li> </ul>		
<b>पत्र व्यवहार एवं सम्पादकीय कार्यालय</b>		
विश्व आयुर्वेद परिषद् पत्रिका 1/231, विरामखण्ड, गोमतीनगर, लखनऊ-226010 (उ०प्र०) चल दूरभाष- 9415003111 email : vapjournal@rediffmail.com dwivedikk@rediffmail.com		
<small>सम्पादक मण्डल के सभी सदस्य मानद एवं अवैतनिक हैं। पत्रिका के लेखों में व्यक्त विचार लेखकों के हैं। सम्पादक अथवा प्रकाशक का उससे सहमत होना आवश्यक नहीं है। आपके सुझावों का सदा स्वागत है।</small>		



वर्तमान परिप्रेक्ष्य में आयुष चिकित्सा पद्धति भारतीय स्वास्थ्य चिन्तन की दशा में महत्वपूर्ण भूमिका प्रदान कर रही है। आयुर्वेद चिकित्सा व्यवस्था इसमें सर्वोपरि हैं। इसके सिद्धान्त आज भी उतने ही प्रासंगिक हैं, जितने हजारों वर्ष पूर्व थे। स्वस्थ के स्वास्थ्य की रक्षा करना एवं व्याधियों का प्रशमन इसका मूल उद्देश्य रहा है, जिसमें स्वस्थ के स्वास्थ्य का संरक्षण सर्वाधिक महत्वपूर्ण है। स्वास्थ्य की परिभाषा के क्रम में शारीरिक, मानसिक, सामाजिक, आध्यात्मिक पक्षों का समग्र मूल्यांकन आवश्यक है, जो विश्व के किसी भी चिकित्सा व्यवस्था में उपलब्ध नहीं है।

आज जबकि पूरा विश्व गैर संक्रामक रोगों के प्रबन्धन के लिए चिन्तित है, आयुर्वेद ही एकमात्र विकल्प के रूप में दृष्टिगत होता है। क्योंकि ये सारे रोग जिनमें उच्च रक्तचाप, मधुमेह, तनाव जन्य व्याधि, स्थौल्य आदि प्रमुख हैं, व्यक्ति के जीवन शैली जन्य रोगों की श्रेणी में आते हैं तथ बचाव ही इनका प्रमुख उपाय रह जाता है। आयुर्वेद में ये रोग याप्य की श्रेणी में गिनाये जाते हैं अर्थात् जीवन भर के लिए इन रोगों की चिकित्सा करते रहना ही अन्तिम उपाय है। चिकित्सा की पूरे विश्व में विशाल बुनियादी संरचना, मंहगी औषधियाँ उपलब्ध होने के बावजूद ढीली अर्थव्यवस्था एवं अन्य कारणों से प्रत्येक नागरिक को चिकित्सा व्यवस्था उपलब्ध करा पाना सम्भव नहीं है। ऐसी स्थिति में दिनचर्या, ऋतुचर्या, सद्वृत्त, आचार रसायन, संशोधन आदि की आवश्यकता सहज ही महसूस की जा सकती है। क्योंकि इससे सस्ती व्यवस्था हो ही नहीं सकती। यदि हम अपने सिद्धान्तों को जन-जन तक पहुँचाने में कामयाब हो सके तो चिकित्सा व्यवस्था पर होने वाले भारी भरकम खर्चों की कटौती स्वयंमेव हो जायेगी। प्रत्येक चिकित्सा पद्धति की अपनी सीमायें हैं अर्थात् कोई भी पद्धति पूर्ण नहीं है, इसलिए यह आवश्यक है कि सभी चिकित्सा पद्धतियों के विशेषज्ञ एक साथ बैठकर, बिना किसी पूर्वाग्रह के, समाज में सबके लिए स्वास्थ्य, इस मनोवृत्ति को रखकर, खुले मन से भारतीय स्वास्थ्य चिन्तन के लिए एक सर्वमान्य प्रशस्त विकल्प ढूँढे, तभी भारतवर्ष जैसे विविधता पूर्ण समाज के लिए स्वास्थ्य उपलब्ध कराना सम्भव हो पायेगा।

आइये इस आने वाले दशक में हम यह संकल्प लें कि एक चिकित्सक कम से कम एक व्यक्ति के स्वास्थ्य की चिन्ता करें तथा उसे आयुर्वेद के सार्वभौम सिद्धान्त से परिचित करावें, और वह अपने परिवार के अन्य सदस्यों को साथ ही आयुर्वेद विद्यालय, चिकित्सालय या चिकित्सको का एक समूह कम से कम एक गांव को गोद लें तथा उनके स्वास्थ्य सम्बन्धी कठिनाईयों की चिन्ता एवं निवारण करें। ऐसा होने से ही हम समाज के सबसे पीछे खड़े होने वाले व्यक्ति का स्वास्थ्य रक्षण कर पायेंगे।

डॉ० कमलेश कुमार द्विवेदी



# RETROSPECTIVE ANALYSIS OF EFFICACY OF VARIOUS AYURVEDIC TREATMENT PROCEDURES IN ARTHRITIS PATIENTS AT SG PATEL AYURVEDA HOSPITAL

• Dr.AR.V Murthy\*, Dr.Yogesh Deole\*\*, Dr.Dilip Jani\*\*\*, Dr.Dhara Patel\*\*\*\*

## Abstract

The incidence of degenerative disorders like arthritis is increasing in the society. Ayurveda narrates various treatment procedures in context of *Sandhigata Vata*. Practically convenient and affordable procedures are needed to be evaluated for their efficacy in management. In the present study, review of efficacy of various treatments like *Sarvanga* and *Ekanga abhyanga*, *Nadi* and *Bashpa Sweda*, *Guggulu* preparation and *Kwatha* in patients admitted in IPD of SG Patel Ayurveda hospital is done. After analysis, it is observed that the treatment showed good improvement (>50%) in maximum i.e.59% of patients. From the study it can be concluded that chronic degenerative arthritis can be successfully managed by Ayurvedic treatment protocol.

**Key Words :** Arthritis, *Sandhigata Vata*, *Snehana*, *Swedana*, *Guggulu*

## Introduction

Ayurveda is increasingly getting popular in the current days in view of its treatment modalities which have specific role in improving quality of life

in chronic degenerative disorders. Arthritis is one of the most common degenerative disorders which hampers the overall movement of affected joint and worsens with increasing age. As reported in Morbidity and Mortality weekly, of persons ages 18-44, 7.6% report doctor-diagnosed arthritis. Of persons ages 45-64, 29.8% report doctor-diagnosed arthritis. Of persons ages 65 or older, 50.0% report doctor-diagnosed arthritis. Approximately 1 in 3 people with arthritis (31%) in between the ages of 18 and 64 report arthritis-attributable work limitation. This shows the prevalence of this disease and limitation of productivity of an individual throughout the life.

As per Ayurveda, it is a well known fact that *Vata dosha* increases in old age and hence degenerative changes related to *Vata* vitiation turns the arthritis patients into crippling deformities. It is utmost important to treat *Vata* vitiation as a basis patho-physiological factor and prevent age related degeneration as a radical cure. In SG Patel Ayurveda Hospital, significant amount of total patient suffering from degenerative arthritis

■ \*Dean & Suptd.,

\*\*Asstt.Prof. & Conslt., Dept. of Kayachikitsa,

\*\*\*Reader and Head, Dept. of Dravyaguna,

\*\*\*\*Medical Officer,

SG Patel Ayurveda Hospital and G. J. Patel Institute of Ayurvedic Studies and Research, New Vallabh Vidyanagar, Anand, Gujarat



arrive for treatment. The present article reviews retrospectively the Ayurvedic treatment modalities in such cases, efficacy of the same as a complete healthcare protocol and mode of action of the treatments.

### **Aims and Objectives**

The aim of present study was to study and analyse efficacy of Ayurvedic treatment in reducing complaints of arthritis.

### **Material and Methods**

Patients suffering from osteoarthritis admitted in IPD of SG Patel Ayurveda Hospital and who took Ayurvedic treatment between the periods of January 2012 to October 2012 were selected for the present review and their clinical data is analyzed retrospectively.

### **Inclusion criteria**

Patients between the age of 20 years to 80 years complaining of pain in one or more joints, swelling and restricted movements of the affected joints and diagnosed as *Sandhigata Vata* (SGV) by the attending physicians were included.

### **Exclusion criteria**

Patients with the suspected diagnosis of *Amavata*, *Vatarakta* and other pathologies which suggest diagnosis other than SGV were excluded. The patients of SGV who took treatment in OPD are also excluded in order to provide uniform dietary regimen in the protocol.

### **Diet**

Routine diet is provided to all the hospitalized patients in IPD.

### **Data Analysis**

The data of 72 patients was collected to review the treatment given between the periods of January 2012 to October 2012. Then it was analyzed for demographic observations, chief complaints, protocol for treatment followed and effect of treatment they received.

### **Assessment Criteria**

The effect of therapy taken was assessed on the basis of overall response received from the patient and classified among three categories as below:

Good Improvement: Above 50% relief in all symptoms

Mild Improvement: Above 25 and below 50% relief in all symptoms

No Improvement: No improvement or below 25% relief in all symptoms

### **Observation and Results**

Total 72 patients diagnosed as *Sandhigata Vata* (SGV) were enrolled from the IPD cases of hospital. The demographic data like age wise distribution (table 1), gender wise distribution (table 2) is presented below. The knee joint was affected in maximum 86.11 % of patients followed by 37.5% suffering from pain in hip joint (table 3). *Shula* (pain) in affected joint was present in maximum 93% of patients. (table 4) On assessing the treatment given, it was observed that whole body *Abhyanga* and fomentation was advised in maximum patients followed by local *Abhyanga* and *Nadi sweda* and *Janu basti*. (table 5) In Internal medication, *Yogaraj Guggulu* is preferred as first line of treatment by



maximum physicians followed by *Simhanada Guggulu* and *Kaishora Guggulu*. In *Kwatha*, *Rasnadi Kwatha* is preferred the most by physicians in their treatment.(table 6)

On assessing the overall effect of therapy on the basis of response from the patients, it is observed that maximum i.e. 59% patients had above 50% improvement in their complaints followed by 27% having mild improvement. However 12% patients had no significant improvement by the treatment in hospital. (table 7)

**Table 1: Age wise distribution (n=72)**

#### Discussion

SGV is a disorder which has two important patho-physiological aspects. The health of the joint depends upon internal strength of the *Dhatu*s

Age Group	N	%
21 to 30	3	4.16
31 to 40	4	5.55
41 to 50	10	13.88
51 to 60	21	29.16
61 to 70	26	36.11
71 to 80	8	11.11

**Table 2: Gender wise distribution (n=72)**

Gender	N	%
Male	30	41.66
Female	42	58.33

**Table 3: Sandhi wise observation (n=72)**

Joint affected	N	%
<i>Janu</i> (Knee)	62	86.11
<i>Kati</i> ( Hip)	27	37.5
<i>Kurpar</i> (Elbow)	4	5.55
<i>Ansa</i> ( Shoulder)	4	5.55

**Table 4: Chief complaint wise observation (n=72)**

Chief complaint in joint	N	%
<i>Shula</i> (Pain)	67	93.05
<i>Shotha</i> (Swelling)	30	41.66
<i>Graha</i> (Stiffness)	40	55.55

**Table 5: External Treatment wise distribution (n=72)**

External Treatment Given	N	%
<i>Sarvanga Abhyanga &amp; Bashpa Sweda</i>	22	30.55
<i>Janu Basti</i>	07	9.72
<i>Local Abhyanga &amp; Nadi Sweda</i>	16	22.22
<i>Dashanga Lepa</i>	05	6.94

**Table 6: Internal medication wise distribution (n=72)**

Internal Treatment Given	N	%
<i>Yogaraj Guggulu</i>	42	58.33
<i>Simhanada Guggulu</i>	15	20.83
<i>Kaishora Guggulu</i> <sup>3</sup>	03	4.16
<i>Gokshuradi Guggulu</i> <sup>3</sup>	03	4.16
<i>Rasnadi Kwatha</i> <sup>3</sup>	23	31.94
<i>Dashamula Kwatha</i> <sup>3</sup>	19	26.38
<i>Phalatrikadi Kwatha</i> <sup>3</sup>	01	1.38

**Table 7: Overall effect of therapy (n=72)**

Improvement	N	%
Good (Above 50%)	43	59.72
Mild (26 -50%)	20	27.77
No (Below 25%)	09	12.5

which take part in the formation of joint. The external factors viz. lifestyle and overuse related to wear and tear of the joint plays important role in affecting its movement. *Nija* (Internal) factors like nourishment of tissues related to joint by proper diet and proper exercise can provide strength as well as longevity to joint. On observing the anatomy and physiology of any joint it can be said that a joint



is not merely an union of two bones. But several other structures like synovial fluid, tendons, elasticity of tendons and muscles maintained by proteins take a vital part in movement of the joint. *Rasa- Preenana* (nourishment), *Rakta Jeevana* (circulation), *Mamsa-Lepana* (muscular mass to cover up the bones), *Meda- sneha* (lubrication of joint and maintenance of elasticity of muscles), *Asthipurana* (structural frame of joint to avoid dislocation), *Shukra-Prajotpada* (formation of new cells) are vital functions of *Dhatu*s which take part in overall health of joint. *Vata* (Movement of any kind), *Pitta* (metabolism / conversion, energy generation through enzymatic pathway of any kind), *Kapha* (nourishment and supply of any kind) are the functional entities which assure to prevent any disorder in balanced state. Therefore when these functions are afflicted due to any internal or external reasons, SGV of the particular joint is bound to manifest.

In present study it is seen that Knee joint is more affected in maximum patients. Knee joint is the prime weight bearing joint and is more susceptible to arthritis. Wear and tear of the *Mamsa dhatu* is prominent in Knee and hip joint. *Shula*, *Graha* and *Shotha* are the symptoms due to aggravated *Sheeta* and *Ruksha Guna* of *Vata*. *Sheeta* can lead to *Stambhana* resulting into restricted movement. Whereas *Ruksha* can lead to *Shoshana* leading to decreased lubrication as well as elasticity of the muscles. Owing to this *Rasa-Rakta-Mamsa-Meda Dhatu*s are vitiated. Therefore *Ushna* and *Snigdha* treatment external as well as internal

should be given.

In the present review it has been observed that maximum patients were advised whole body *Abhyanga* and *Bashpa Sweda*, *Janu Basti* and local *Abhyanga* with *Nadi Sweda*. *Abhyanga* when practiced daily has many benefits like improving circulation, stabilizing the joints; it improves the muscle strength; to provide nourishment. It is also known to prevent age related degeneration. *Bashpa Sweda* and *Nadia Sweda* are two most important treatment modalities in management of arthritis. *Sweda* can prevent restriction, reduce stiffness, improve circulation, remove obstruction as it has been described in classics. In the present study *Mahanarayana Taila* was used by most of the physicians. *Janu Basti* is a local treatment modality to improve local lubrication, strength of muscles, enhancing status of synovial membrane as well as penetrability of ingredients of medicated oil.

In internal medication, *Yogaraj Guggulu* and *Simhanada Guggulu* are chiefly used for the management. *Guggulu* is known for its *Vatahara* effect. Additional ingredients like *Eranda* can potentiate the *Vatahara* effect. *Rasnadi Kwatha* and *Dashmula Kwatha* in *Anupana* with *Guggulu* can be ideal supportive medication in the management.

It has been observed that a combination of *Kaishora Guggulu* or *Simhanad Guggulu* along with *Rasnadi Kwath* becomes suitable package for *Upastambhita* type of SGV. Whereas a combination of *Yogaraja Guggulu*, *Gokshuradi Guggulu* and *Dashamoolarishta* seems to a ideal package for *Nirupastambhita* type of SGV. (शेष पृष्ठ 51 पर)





# CHRONIC CERVICITIS VIZ-A-VIZ KAPHAJ YONIVYAPADA

• Vijay Lakshmi\*, Neelam\*\*

## Abstract

In Ayurvedic classics, almost all gynaecological disorders come under the big heading of Yonivyapada. This also includes menstrual disorders, abortions or stillbirths and diseases of uterus, cervix and vagina. Chronic cervicitis is judged by the presence of a heavy mixed chronic inflammatory cell infiltrate. This condition causes congestion and fibrosis of cervix and characterized by mucopurulent vaginal discharge with foul smelling, pruritus vulvae, dyspareunia, failure of conception etc. The disease chronic cervicitis can be put parallel to kaphaj yoni vyapada on the basis of signs and symptoms. Here an attempt has been made to correlate chronic cervicitis with kaphaj yoni vyapada describes in Ayurvedic classics.

## Introduction:

Woman surpassing through different stages and phases prospers the house hold and society. As a wife and mother she becomes the locus of the family which is a functional unit of the society. Woman being wife is the source of sexual ecstasy and credited as best aphrodisiac and a woman with diseased genitals was described unfit for sexual life and impregnation. Without mother there is no possibility of conception. Perfect femininity leads to healthy and safe motherhood. Because of their

unique physiology like menstrual cycle, pregnancy, child births, women are more susceptible to suffer from sexually transmitted diseases. Cervicitis is the most common STD's syndrome in females. In acute condition, it is symptomatic but may be symptomatic or asymptomatic in chronic. it is commonest during menstrual years and rarely affects premenarchal girl or post menopausal women. Chronic cervicitis is brought about by infections during abortion, cervical lacerations during child birth, instrumentation during dilatation of cervix, IUCD insertion and repeated injuries caused by pessaries, tampons, and chemical contraceptives. In Ayurveda, term "Yoni" is used in a very broad sense and represents the whole female genital organs and "Vyapada" means disorders. All gynaecological disorders come under the heading of yonivyapada. All the Ayurvedic classics have described the 20 types of yonivyapad i.e. Vatiki, Paittiki, Slaishmiki, Sannipatiki, Acharana, Aticharana, Prakcharana, Udavartini, Putraghni, Antarmukhi, Suchimukhi, Sushka, Sandayoni, Mahayoni, Raktayoni, Arajaska, Paripluta, Vamini, Upapluta and Karnini. On the basis of symptoms & signs chronic cervicitis can be put parallel to Kaphaja yonivyapad.

## Yoni-vyapada:

All the classics i.e. Charak Samhita, Sushruta

■ \* Lecturer, Department of Prasuti Tantra, Government Ayurvedic College, S.S.U., Varanasi.

\*\* Professor, Department of Prasuti Tantra, Faculty of Ayurveda, IMS, BHU, Varanasi.



Samhita, Astanga Hridaya, Astanga Sangraha, Kashyapa Samhita, Madhava Nidan, Bhela Samhita have mentioned twenty number of Yonivyapada. Acharaya Charak has described vatiki, paittiki, slaishmiki, sannipatiki Yonivyapada are due to the vitiation of respective doshas. Among the rest of sixteen diseases, ten are due to vata, i.e. Acharana, Aticharana, Prakcharana, Udavartini, Putraghni, Antarmukhi, Suchimukhi, Sushka, Sandayoni and Mahayoni. Raktayoni and Arajaska are due to pitta, Paripluta and Vamini are due to vata-pitta and Upapluta and Karnini are due to vata-kapha. Acharya Susruta has classified five yonivyapada under each dosha i.e. Udavarta, Vandha, Vipluta, Paripluta and Vatala due to vata, Rudhirkshara, Vamini, Sranshini, Putraghni and Pittala due to pitta, Atayananda, Karnini, Acharana, Aticharana and Slaishmala due to pitta and yonivyapada due to sannipata are Shandi, Phalini, Mahati, Suchivaktra and Sarvaja.

There is no specific classification of yonivyapada is found in Ashtanga Hridaya and Ashtanga Sangraha. Both of them have followed Charaka Samhita except description of Vipluta in place of Acharana.

Sharangadhara has described vitiation of rakta along with of vata, pitta, kapha and sannipata. He mentioned Khandita and Nanda instead of Udavarta and Shanda. Twenty yonivyapada described by Sharangdhar are, one each due to vitiation of Vata, Pitta, Kapha, Sannipata and Rakta (five), Lohitkashaya, Sushka, Vamini, Khandita,

Antarmukhi, Suchimukhi, Vipluta, Jataghni, Paripluta, Upapluta, Prakcharana, Mahayoni, Karnini, Nanda and Aticharana. Kashyapa has mentioned twenty numbers of yonivyapada but not described anything further. Madhava has given description like Sushruta except Lohitkashaya in place of lohitakshara. Bhavaprakash and Yogaratnakar both followed Sushruta but in Bhavaprakash Anandacharana is described in place of Acharana and Andini in place of phalini. In Yogratnakar, description is identical to that of Bhavaprakash except Lohitkashaya in place of Lohitkshara.

#### **Kaphaja Yoni-Vyapada:**

According to Sushruta, Kaphaja yoni vyapada includes five disorders, i.e. Slesmala, Atyananda, Acharana, Aticharana and Karnini, while Charaka and Vagbhata have mentioned only one i.e. Slesmiki. Two other yonivyapada Upapluta and Karnini have described by Vagbhata, in which predominance of vata and kapha dosha are present. All the Ayurvedic classics have described this vyapada under different names viz. Kaphaja, Slesmala, Slesmaki or Slesmaja based either on dosha or source of origin. The word Slesmala is coined from kapha action of firmly embracing the yoni. The word Slesmiki indicates the predominance of slesma dosha and the word Kaphaja denotes the origin of disease from kapha.

#### **Etiology of Kapha Vitiation:**

These all several factors which are directly responsible for vitiating kapha can be grouped



under three heading.

1. Dietic Factor (Sweet, Curd, Fat and Carbohydrate)
2. Seasonal Change (Vitiating of kapha is more in spring and less in autumn season)
3. Mode of life (lack of exercise, sleeping during day time, sedentary habits etc.)

Vitiating of kapha has close relation with rasa dhatu being a similar in behaviour and nature. Therefore, rasa always plays an important role in kapha vitiating because of its day night circulating property. In daily routine, we find kapha increases during morning time and decreases at evening. Immediately after taking food the man feels lethargic and wants to take rest for a while, which is also an influence of heaviness property of kapha.

In Ayurvedic texts, emphasis has been given by various workers with different angles. Sushruta is of the opinion that sleeping in day time, sedentary habits, salty, sour and cold things, excessive use of liquids, beverages and the food stuff producing abhishyandi effects are factors responsible to vitiate kapha. According to Acharya Vagbhata, sweetish food stuff, cold environment, madhura, amla, lavana rasa containing diets also play an important role in vitiating of kapha dosha. Though these are the factors responsible to vitiate kapha, which may produce a disease anywhere in the body. However, if other predisposing factors of Doshadushya samurchhana at genital organ i.e. excessive coitus, coitus during menstruation, multiple parity etc. is present, disease of genital organ may occur.

#### **Pathogenesis:**

The kapha aggravated by above reasons vitiates the Agni in mahasrotas due to which the Rasa will be converted into Amarasa. This ama along with aggravated kapha circulates in the body through the medium of blood under the influence of vayu. The aggravated doshas in circulation will have the capacity to produce the disease either in an organ, half or whole of the body<sup>79</sup>, similarly in dhatu too. Because of derangement in dhatwagni brought about by srotovaisamya, the prasadpaka will not take place properly. Naturally the nourishment of subsequent dhatus will be influenced leading to one side production of Ama and on the other side produce deficiency in nutrition or weakness. The rasa which is first dhatu and has properties a bit similar to kapha, also gets involved. Therefore involving rasa dhatu or dushya, after reaching in yoni, which is already made more vulnerable by the local etiological factors, produces the disease kaphaja yoni vyapada.

#### **Clinical Features:**

With regards to clinical features, Charaka has explained the presence of unctuousness, coldness, itching mild pain, excretion of yellowish white coloured discharge and yellowish unctuous menstrual blood. According to Sushruta, unctuousness, pruritis and extreme coldness are the symptoms of kaphaja yoni vyapada. According to both Vagbhatas, painlessness, coldness, pruritis and extreme coldness are symptoms of kaphaja yoni vyapada. Chakrapani has equated this with



kaphaja asrigdara on the basis that yellowish discharges per vaginam are present during inter menstrual period also. Madhva Nidana, Bhavaprakash and Yogaratnakar all followed the concepts of Sushruta in regards to etiopathology and clinical features etc. of kaphaja yoni vyapada. On summarising the above proclamations it appears that the disease possesses the following sympatomology i.e. coldness, pruritus, unctuousness, excretion of yellowish coloured discharge and yellowish white menstrual blood with or without pain.

**Principle of treatment:**

In the line of treatment it has been mentioned that since the vitiated vata is the root cause for the development of disease of yoni, thus the vata has to be treated first or along with other doshas. It has also been mentioned that the medicine has to be administered only after sodhana therapy. It is stated that the uttarvasti, massage, irrigation ointment and tampons will have to follow the Snehana and swedana karma. Charaka and Vagbhata have advice that ruksha and usna treatment for kaphaja yonivyapada. In this treatment Charaka has laid stress upon local application only viz. Vasti, Kalka and Varti.

**Chronic Cervicitis:**

Chronic inflammation of cervix is very common lesion found in women attending gynaecological outpatients. It may follow an acute attack or usually chronic from beginning. Chronic cervicitis is common in women following childbirth. It is a long-

term infection that may not have symptoms and only be detected at routine gynaecological examination.

Chronic cervicitis is seen as a result of an erosion, laceration, ectropion or eversion of the cervical mucosa. The term endocervicitis is sometimes employed in referring to the lesions that involve only the cervical canal but the fibrous substance of the cervix as well as the squamous epithelium of the portio usually take part in the inflammatory reaction. Chronic Cervicitis may be specific or nonspecific. It is also often associated with pregnancy and the use of oral contraceptives, probably due to an increased blood supply to the cervix as a result of increased hormone levels. Less commonly, cervicitis is caused by sensitivities to certain chemicals, including those in spermicidal, latex, and tampons.

The term specific cervicitis is generally applied to a Neisserian infection. Nonspecific cervicitis is caused by other pyogenic micro-organisms e.g. Streptococci, Staphylococci, E. coli, etc.

**Etiology:**

Chronic cervicitis can probably arise as a result of vaginal organisms becoming pathogenic. Chronic cervicitis is brought about by infection during abortion or childbirth and this method of infection accounts for majority of the cases. Causative pyogenic organisms are Staphylococcus, Streptococcus or E.coli etc. Chlamydia trachomatis is more and more implicated with Gonococcus being a rarity. Lacerations of the cervix during



childbirth lead to some degree of chronic cervicitis. Puerperal type is often associated with laceration of the cervix and with chronic cellulitis. If the wound fails to heal by first intention, the edges of the laceration tend to become everted. In this way the cervical canal becomes more patulous and allows the organisms to ascend from the vagina and infect the cervical canal.

Instrumentation may also lead to chronic cervicitis, particularly if the cervix gets torn during dilatation. Chronic cervicitis may follow repeated injuries caused by pessaries, tampons and chemical contraceptives. Chronic cervicitis is seen as the result of an erosion, laceration, ectropion or eversion of the cervical mucosa.

#### **Pathology:**

True chronic cervicitis, as judged by the presence of a heavy mixed chronic inflammatory cell infiltrate. Lymphocytes and plasma cells infiltrate in the endometrium is accepted as normal, but in the cervix often triggers a diagnosis of chronic cervicitis.

Although organisms can linger in the glands of the endocervix for many years, the condition of chronic cervicitis does not usually represent an active inflammatory state. It is the end result of injury and inflammation. The mucosa and the deeper tissues are infiltrated with leukocytes and plasma cells and because of this, the mucosa and the deeper tissues become fibrosed and congested. The glands are also hypertrophied with increased secretory activities. Some of the gland mouths are

closed by fibrosis or plugs of desquamated epithelial cells to cause retention cyst- Nabothian follicles. Thus, in fact, it should be called chronic endocervicitis as the ectocervix is protected by overlying stratified squamous epithelium. There may be association of lacerated and everted endocervix, the condition is called eversion or ectropion.

#### **Clinical features:**

There may not be any symptoms, accidentally discovered during routine gynaecological examination. However the following symptoms may be present.

1. Vaginal discharge: The discharge may be excessively mucoid from the overgrowth. The discharge predominantly mucopurulent. It usually dates from abortion or childbirth or from attack of Gonorrhoea.
2. Contact bleeding: The bleeding or spotting is not characteristic of cervicitis, but it may result from extensive erosion. Contact bleeding especially during pregnancy either following coitus or defaecation may be associated.
3. Infertility: Infertility attributed to chronic cervicitis results from altered biophysical characteristics of cervical mucus such as a fall in cervical mucus pH and raised vaginal pH. Infertility may be due to the inflammatory changes that result in a thick tacky cervical mucus which is acidic in nature and hostile to sperms.
4. Occasionally, chronic cervicitis will cause intermenstrual bleeding. The bleeding may follow



intercourse, douching or per vaginal examination. Such bleeding warrants cervical punch biopsy to rule out malignancy.

5. Low backache: Most of the patients have complaint of low backache due to involvement of parametrium. Inflammation in parametrium i.e. parametritis causes backache.

6. Congestive dysmenorrhoea, Deep dyspareunia, Lower abdominal pain, Lumbosacral backache is due to associated parametritis.

7. On speculum examination, the cervix is hyperaemic and in the absence of erosion, the area surrounding the external os is purple. There may be congestion of cervix, enlargement of cervix and fibrosis of cervix. Ectropion, erosion and Nabothian follicles may be present on the cervix. Mucoid or Mucopurulent discharge escaping out through the cervical os.

8. Cervix may be tender to touch or on movement. Tenderness is due to inflammatory changes in the cervix. Fornices may be tender due to the associated parametritis.

#### **Investigations:**

Besides signs and symptoms, the following investigations should be done to confirm the diagnosis and for proper treatment to cure the disease.

1. Cytological examination (Pap smear)
2. *Cervical Punch Biopsy*
3. *Cervical culture*
4. *Haematological investigation: Hb%, TLC, DLC, ESR etc.*
5. Serological investigations: VDRL, HIV

#### **6. Urine examination: Routine & microscopic**

##### **Complications:**

If the chronic cervicitis is not treated properly and within time, it may cause so many complications in future, some of which are given below:

1. Leukorrhoea
2. Cervical stenosis and infertility are sequelae of chronic cervicitis.
3. Erosion
4. Carcinoma of the cervix usually occurs in parous women. Urethritis, Cystitis and Trigonitis are secondary to the chronic cervicitis.
5. Salpingitis is common with gonorrhoeal cervicitis.

##### **Prophylaxis:**

1. Proper hygiene should be maintained.
2. The infection can be prevented by the avoidance of sexual contact with infected individuals and by the use of condom for protection during coitus.
3. The avoidance of surgical or obstetrical trauma and proper repair of cervical lacerations will help to prevent the subsequent development of a chronically infected cervix.
4. Full aseptic measures should be taken during IUCD insertion.
5. Use of irritants should be avoided.

##### **Treatment:**

Cervical scrape cytology (Pap smear) should be done to exclude malignancy prior to any therapy. Asymptomatic chronic cervicitis do not require treatment. The application of antiseptics to the cervix seldom results in permanent cure because



the infection is deep-seated in the cervical glands and the antiseptics do not penetrate that far. That is why there is no place of antibiotic therapy except in Gonococcal or proved case of Chlamydial infection.

**Medical treatment:**

A chronic purulent discharge from the cervical canal should be investigated for culture and sensitivity test. Antibiotic treatment should be given systemically (orally and parenterally) rather than topically because there is little justification for treating deep-seated endocervical infection, which often are unresponsive to vaginal chemotherapy. Medical treatment should be employed initially for patient during and after the childbearing period. If the patient is unimproved after 3-4 months, minor surgical therapy is indicated.

**Surgical treatment:**

The different surgical procedures for the treatment of chronic cervicitis are

1. Diathermy cauterization
2. Cryosurgery
3. Conization
4. Trachelorrhaphy
5. Hysterectomy

**Prognosis:**

Chronic cervicitis is almost cured by the surgical treatment. Treatment with negligence or over treatment causes poor prognosis. Mild chronic cervicitis usually responds to local therapy but severe chronic cervicitis may require long term therapy or surgical treatment. Prognosis also depends upon the type of chronic cervicitis. Specific type have poor prognosis and require long-term

therapy but non-specific type have better prognosis. Prognosis also depends upon the personal hygiene of the patients. Patients with good hygiene have better prognosis while those with unhygienic condition have poor. Complicated Chronic cervicitis have poor prognosis while good prognosis is related with uncomplicated cervicitis having minimum signs and symptoms.

**Discussion:**

In Ayurvedic literature, all the disorders of reproductive organs come under the heading of yonivyapad. All the ayurvedic classics have described the 20 types of yonivyapad i.e. Vatiki, Paittiki, Slaishmiki, Sannipatiki, Acharana, Aticharana, Prakcharana, Udavartini, Putraghni, Antarmukhi, Suchimukhi, Sushka, Sandayoni and Mahayoni. A clinical entity characterized by itching and mucoid discharges is called kaphaj yonivyapada.

Cervicitis is an inflammatory condition of cervix. The term cervicitis is reserved for inflammatory lesions in the endocervix including the glands, stroma and deeper tissues. It is a very common and seen in 80% of women with any gynaecological complaints. Signs of chronic cervicitis as seen in per speculum examination are congestion, hypertrophy, ectropion, erosion & nabothian follicles present on cervix. Cervix may be tender during per vaginum examination. Cervicitis is commonest during menstrual years and rarely affects premenarchal girl or post menopausal women. Chronic cervicitis is brought about by infections during abortion, cervical lacerations



during child birth, instrumentation during dilatation of cervix, IUCD insertion and repeated injuries caused by pessaries, tampons, and chemical contraceptives. On the basis of symptoms & signs chronic cervicitis can be put parallel to Kaphaja yonivyapad.

**References:**

1. Acharya Vagbhat, Astanga Hridaya, Hindi Translation by Atridev Gupta, 14<sup>th</sup> edition Chaukhambha Sanskrita Sansthan, Varanasi, 2003.
2. Acharya Vagbhat, Astanga Sangraha: Part I & II, Hindi Translation by Atridev Gupta, Krishna Das Academy, 2002.
3. Tiwari P.V., Ayurvediya Prasuti tantra & Stri Roga, II<sup>nd</sup> Part, 2<sup>nd</sup> edition, Chaukhambha Orientalia, Varanasi, 2000, reprint 2005.
4. Usha V.N.K., Stree Roga Vigyana, 1<sup>st</sup> edition, Chaukhambha Sanskrit Pratishthan, New Delhi, 2010.
5. Acharya Bhav Mishra, Bhav Prakash Nighantu, Uttarkhanda, Hindi Commentary by Shree Brahma Shankar Mishra and Rupali Ji Vaishya 7<sup>th</sup> edition, Chaukhambha Sanskrit Series, Varanasi, 2000.
6. Achaya Charaka, Charak Samhita Part I & II, Hindi Translation by Pandit Kashinath Nath Shastri and Dr Gorakh Nath Chaturvedi, Chaukhambha Sanskrit Series, Varanasi, 1998.
7. Dawn C.S., Text Book of Gynaecology, Contraception & Demography, Fourteenth Edition, Dawn Books, Kolkata, 2003.
8. Dravya Guna Vigyan: By Prof. Priyavrata Sharma Vol. III, 1974, Published by Chaukhambha Vidya Bhawan, Varanasi.
9. Dutta D.C.: Text Book of Gynaecology, edited by Hiralal Konal, published by New Central Book Agency (P) Ltd. 4<sup>th</sup> Edition, 2003, Reprint 2005.
10. Harita Samhita, Text Book with Asha Hindi Commentary by Ramavalambha Shastri, 1<sup>st</sup> edition, 1985, Prachya Prakashana, Varanasi.
11. Jahan Shabnam et al. 2006, Effect of Trivrit and Rasona oil Uttarabasti in Udavartini Yonivyapada., Department of Prasuti Tantra, Faculty of Ayurveda, I.M.S., B.H.U., Varanasi.
12. jeevaka Vriddha, Kashyapa Samhita, Hindi commentary by Satyapal Bhaishajya, 1<sup>st</sup> edition, Chaukhambha Sanskrit Series Office, Varanasi, 1953.
13. Keydev Acharya, Kaydev Nighantu, edited and translated by Prof. Priyavrata Sharma and Dr Guru Prasad Sharma, 1<sup>st</sup> edition, Chaukhambha Orientalia, 1979.
14. Pal Raja Madan, Madan Pal Nighantu, hindi Commentary by Shakitdhan Shukla, Naval Kishore Press, Lucknow, 1990.
15. Madhava Acharya, Madhav Nidana, Madhukosha Vyakhya 2<sup>nd</sup> part by Shri Yadunandan Upadhyaya, Sanskrit Series Bhawan, Varanasi, reprint 2003.
16. Shivani Adhana et.al, 2000 "Role of Uttarabasti in Artava Vyapada", IMS, BHU, Varanasi.
17. Srivastava Jaya et al. 2004, Effect of Bhumyamalki in Asrigdara, Department of Prasuti Tantra, Faculty of Ayurveda, I.M.S., B.H.U., Varanasi.

\*\*\*\*\*





# PHARMACEUTICAL AND SHELF LIFE STUDY OF SINGLE DRUGS (HARITAKI, VIBHITAKI, AMALAKI CHURNA) AND MULTIPLE INGREDIENTS (TRIPHALA CHURNA)

● Niranjan Sonkar\*, C.B Jha\*\*, Alka Agarwal\*\*\*

## Introduction:

The moral responsibility of every pharmaceutical manufacturer to ensure the highest standards for his drug products, that have to be ultimately consumed by the patient, standard operating procedures (SOPs) need to be laid down. SOPs are tools to ensure the good manufacturing practices (GMP) are being followed wherever applicable. In most of the small and medium companies, there is very little awareness about many procedures that should be adopted for performing the day to day functions. Even some of them are aware they do not understand how to properly define and implement those procedures so as to ensure the repeatability of the actions. To ensuring the safety and efficacy of various drug products that are available in the market but some factors affect the quality of drug products these factors include storage and handling of the raw material at the vendor place and the consuming factory's warehouse, cross contamination possibilities, manufacturing precautions (to ensure right quantity and right quality) quality control lab procedures for testing the drug product and finally

the storage and handling at the producer's warehouse and the distributor /stockiest / retailer premises. In order to avoid these problems, SOP is provided as they enable the people to perform their functions accurately and without mistakes. The basic principle behind these documents is that if it is not written. This means that if an activity is to be performed, there should be documentary evidence to prove that the activity was done, it was done by a predefined person, it was done by the required procedure and this was checked /verified by a predefined person. Instructions and procedures should be written in a clear language, specifically applicable to the facilities provided. Records are made in such a way that during manufacturing process, it will show all the steps required by the defined procedures and instructions have in fact been taken and that the quantity and quality of the product is as expected. Documents required are to be designed, prepared, reviewed and distributed with such a care that it will comply with the relevant parts of the manufacturing and operating procedures as well as facilities available. Documents will be approved, signed and dated by

■ \*Senior Resident and Ph.D Scholar

\*\*Professor, Head and Dean, Dept. of Rasa Shastra, Faculty of Ayurveda, IMS, BHU, Varanasi

\*\*\*Associate Professor, Dept. of Medicinal Chemistry, Faculty of Ayurveda, IMS, BHU, Varanasi



appropriate authorized persons and persons nominated by the management. In the context of present study Triphala Churna, have been prepared by using standard operating procedures (SOP) technique.

#### **Grouping of Samples**

The drugs specified in different groups according to the need of analysis for authentication of the data generated.

The trial drugs are divided into two batches, one batch samples are kept in ordinary conditions of temperature, pressure and humidity and second batch is kept in stability chamber under controlled humidity and temperature. Each batch consisting four groups and each group contains four samples. Other than this one group containing four samples of freshly prepared Haritaki Vibhitaki, Amalaki and Triphala churna are analyzed in all stated parameters as control group for both the batches, a total of 36 samples are subjected for analysis.

**Batch A.** Room temperature

**Batch B.** Stability chamber (Temp.  $45^{\circ}\text{C} \pm 2$  & RH  $75\% \pm 5$ )

**Batch C.** Control group

#### **Materials and methods**

Triphala was collected from local market of Gola Dinanath Varanasi. The Triphala Churna was prepared in the Department of Rasa Shastra & Bhaishajya Kalpana, Institute of Medical Sciences BHU, Varanasi.

Preparation of Haritaki, Vibhitaki, Amalaki and Triphala Churna

**Reference :** Sharangadhar Samhita Madhyam Khanda -6/1

**Equipments:** Khalwa yantra, Pulveriser, Spatula, Cotton, Cloth, Sieve Hammer mill, Cone mill, Tray, weight balance etc.

**Principle :** Pounding and Filtering.

#### **Method of Preparation**

**Ingredients**

Haritaki : 1.5Kg.

Vibhitaki : 1.5Kg.

Amalaki : 1.5Kg

#### **Procedure:**

The fruits of above mentioned ingredients (i.e. Haritaki, Vibhitaki, Amalaki) are taken and their seed are separated by pounding with the help of mortar and pestle and pulp of each ingredient is collected separately and weighed to 1.5 Kg. each drug is powdered separately to get separate churna and then mixed intimately to make Triphala churna.

The powder of the entire sample i.e. Amalaki churna, Haritaki churna, Vibhitaki churna and Triphala churna is sieved in 80 no. mesh in order to collect.

Churna with uniformity of churna. This powder is collected in wide mouth plastic containers. Further the mouth of container is sealed with aluminum foil then packed with cap. The label containing the detail i.e. name of medicine reference, quantity, date of manufacturing etc. are paste on the packing.

#### **Observation and Organoleptic characters:**



Fig. 1 : Fresh Mature Haritaki Fruit

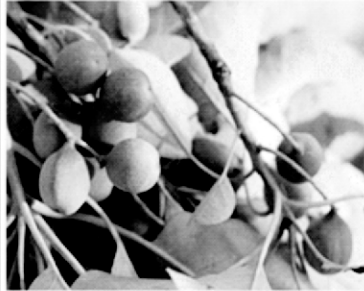


Fig. 4: Fresh Mature Vibhitaki Fruit



Fig. 7 : Fresh Mature Amalaki Fruit



Fig. 2 : Haritaki Fruits



Fig. 5 : Vibhitaki Fruits



Fig. 8 : Amalaki without seed

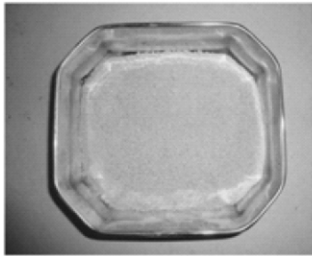


Fig. 3 : Haritaki Churna

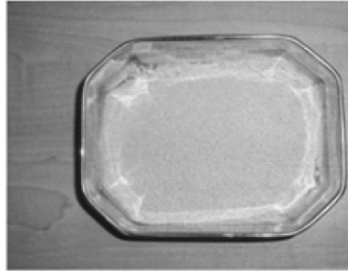


Fig. 6 : Vibhitaki Churna



Fig. 9 : Amalaki Churna

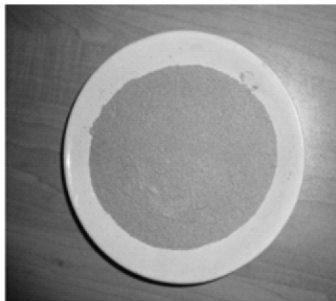


Fig. 10 : Triphala Churna



Fig. 11: Different Samples of Trial Drugs



Table No. 1

<b>Organoleptic test</b>	<b>Haritaki</b>	<b>Vibhitaki</b>	<b>Amalaki</b>	<b>Triphala</b>
Colour	Brown	Light brown	Grayish black	Grayish brown
Odour	Peculiar odor of <i>Haritaki</i>	Peculiar odor of <i>Vibhitaki</i>	Peculiar odor of <i>Amalaki</i>	Peculiar odor of <i>Triphala</i>
Taste	Astringent	Astringent	Sour& astringent	Astringent
Touch	Fine powder	Fine powder	Fine powder	Fine powder

Colour, Odour, Taste, and Touch there is no change even one to six months. (At room temp. and stability chamber)

#### **Haritaki churna**

1. Coarse powder was obtained after initial processing of *Haritaki Churna*
2. After completion of preparation, yellow brown colour of raw material was converted into fine *Churna* of brown colour.
3. Total duration required for preparation of *Haritaki Churna*- 1 week
4. Final weight obtained *Haritaki Churna* 1 kg.
  - Total loss of weight 500 gm.
  - Percentage of loss of weight of *Haritaki Churna*- 33.3%

#### **Vibhitaki churna**

1. Coarse powder was obtained after initial processing of *Vibhitaki churna*.
2. After completion of preparation, light yellow colour of raw material was converted into fine *churna* of light brown colour
3. Total duration required for preparation of *Vibhitaki Churna* 1 week.
  - Final weight obtained of *Vibhitaki Churna* 1 Kg.
  - Total loss of weight 500 gm.

- Percentage of loss of weight *Vibhitaki Churna*- 33.3%

#### **Amalaki churna**

1. Coarse powder was obtained after initial processing of *Amalaki Churna*
2. After completion of preparation, yellow brown colour of raw material was converted into fine *churna* of grayish black colour
3. Total duration required for preparation of *Amalaki Churna*- 1 week
4. Final weight obtained of *Amalaki Churna* 1kg.
  - Total loss of weight 500 gm.
  - Percentage of loss of weight of *Amalaki churna*-33.3%

#### **Triphala churna**

1. Coarse powder was obtained after initial processing of *Triphala churna*.
2. After completion of preparation, light yellow colour of raw material was converted into fine *churna* of grey brown colour
3. Total duration required for preparation of *Triphala Churna* 2 weeks.
4. Final weight obtained of *Triphala Churna* 1 kg.
  - Total loss of weight 500 gm.
  - Percentage of loss of weight *Triphala churna*-



33.3%

**Observation:**

(a) On the day of manufacturing of *Haritaki*, *Vibhitaki*, *Amalaki* and *Triphala churna* the bacterial load was examined and it was found that all the four preparation are free from bacterial growth.

(b) All the preparations were divided into control group Batch-C, trial batch-A, and batch-B, and then stored at room temperature and stability chamber respectively. Then all the samples were further tested at the end 1 month, after 2 months, after 4 months, and 6 months.

(c) No bacterial growth is seen in any of the samples examined on the time duration.

**Shelf life: The parameters for Stability study are**

Determination of Loss on drying at 105°C, total ash, water soluble ash, methanol soluble extractive value, water soluble extractive value, pH value Thin layer chromatography, Study of microbial load, Atomic absorption spectroscopy

**Batch A :** Samples for stability study at ordinary condition of temperature, pressure and humidity.

- Greatest care was taken to avoid contamination through the environment and moisture effect
- Samples are taken in different duration as planned, for the assessment of their deterioration with respect to Physical, chemical and microbiological parameters with time by using modern sophisticated tools and techniques as mentioned above.

**Batch B :** Samples for Stability Study at stability chamber under control humidity and temperature.

- The samples are kept in tight packing of 100 gm. of plastic container with close packing of aluminum foil over mouth of the container.
- All the samples are kept in Stability Chamber with the temperature  $45^{\circ}\text{C} \pm 2^{\circ}\text{C}$  and Relative Humidity  $75\% \pm 5\% \text{RH}$
- Samples are taken in different duration as planned, for the assessment of their deterioration with respect to Physical, chemical and microbiological parameters with time by using modern sophisticated tools and techniques as mentioned above.

**Batch C :** Samples for Stability study as control group.

The samples of this batch are freshly prepared and in same day were subjected for their assessment with respect to Physical, chemical and microbiological parameters to fix up the observed values for control group.

**Accelerated stability testing**

Accelerated stability testing ( $40^{\circ}\text{C} \pm 2^{\circ}\text{C}$  75% RH  $\pm 5\% \text{RH}$ ) refers to methods by which product stability may be estimated storage of the product under conditions that accelerate degradation commonly by an increase in temperature, light, moisture, agitation, gravity, pH, packaging and method of manufacture. The accelerated method is often used to provide an early indication of product shelf life and there by shorten development schedule.



### Container and closure System

The samples of all the batches are kept in tight packing of 100 gm. of plastic container with close packing of aluminum foil over mouth of the container. The containers were properly leveled with Name of the sample with code, Mfg date, and Wt.

### Result and Discussion:

Churna is said to be considered as the dry *Kalka* of plant material. As per the classical definition when a completely dried plant material pounded properly and filtered through a fine cloth the filtrate is known as *Churna*. Now a day pounding and filtering process even in small quantity of material is shifted on mechanical device and to get different size of particle various numbers of sieve/ mesh is utilized.

To prepare *Triphala churna* a genuine, mature *Haritaki*, *Vibhitaki* and *Amalaki* were purchased from the local market. It was cleaned, washed and dried properly. Then its seeds were removed from the fruit and dry pulpy part of fruit was taken and weighed. It was then separately pounded to make course powder. Then it was subjected in pulverizer and powdered. This powder is filtered through the 80 number sieves and fine powders of all three were obtained separately. All three are kept separately. To prepare *Triphala Churna* all three were taken in equal quantity and uniformly mixed together in a ball mill. Thus *Triphala Churna* get prepared.

This study reveals that, the deterioration time

of the plant material depends upon the amount of water present in the plant, if the water content is high, the plant can easily deteriorate due to fungus. It was obvious that moisture contents were present in the range of 3.5% to 5.5% in all groups of samples.

The presence of ash in the medicinal plant material determined as total ash, acid insoluble ash and water soluble ash. When drugs are incinerated they leave an inorganic ash which in the case of many drugs varies within wide limits of 3.0% to 7.5% in all groups and these values are of significance for the purpose of plant drug evaluation.

The determination of extractive values (alcohol/water) refers to the amount of constituent in a given amount of plant material extracted with solvents. Such extractive values provide an indication of the extent of polar medium. Polar and non polar components are present in the plant material. The extractive values are decreasing in all batches.

The pH value of an aqueous solution may be defined as the common logarithm of the reciprocal of the hydrogen ion concentration expressed in grammas. The pH value of all the batches towards acidic nature of phyto-constituents that indicates the nature of constituents are not changing, it remains acidic in nature.

### Conclusion:

Pharmaceutical study of *Haritaki Churna*, *Vibhitaki Churna*, *Amalaki Churna* and *Triphala Churna* retain their potency i.e. no deterioration is observed in terms of physical, chemical and



microbiological parameters after six month duration in the RH 75%±5 and at temperature 45° C± 2° C. Over all it can be concluded that the trial drugs taken for study i.e. *Haritaki Churna*, *Vibhitaki Churna*, *Amalaki Churna* and *Triphala Churna* retain their potency i.e. no deterioration is observed in terms of physical, chemical and microbiological parameters after six month duration in the RH 75%±5 and at temperature 45° C± 2° C. This shelf life period may be applicable to other *churnas* having similar method of preparation and constituents having similar range of phyto-chemicals, carbohydrates, cellulose etc.

It can be suggested that further research can be done considering more time period and providing more relative humidity and corresponding temperature for its validation and concluding the shelf life in a larger extent.

This shelf life period may be applicable to other *churnas* having similar method of preparation and constituents having similar range of phyto-chemicals, carbohydrates, cellulose etc.

It can be suggested that further research can be done considering more time period and providing more relative humidity and corresponding temperature for its validation and concluding the shelf life in a larger extent

#### **Acknowledgement:**

Authors are great thankful to Banaras Hindu University, Varanasi to providing the financial assistance.

#### **References:**

1. *Mishra Acharya Siddinandana, A text Book of bhaishaya kalpana vijnama published by chowkhamba surbharati prakashan, vartanasi 2001(India)*
2. *Shastri Ambikadatt A Text Book Bhashajya Ratnawali Sharangadhar Samhita Madhyam Khand 6/1, Published by Chaukhamba Publication, Varanasi.*
3. *Reddy Dr. K.R.C A Text Book of Bhaishajya Kalpana Vijnama Published by Chaukhamba oriental prakashan, Varanasi II<sup>nd</sup> edition 2008(India)*
4. *Charak Samhita Purva khanda, Sutra Sthan.4/4 with introduced by Shastri Satya narayana, published by Chowkhamba Bharati academy, P.O box No.1065 Gokul bhawan, K-37/109, gopal mandir Lane, Varanasi 221001(India)*
5. *Hiremath Dr. Sobha Ji A text book of Bhaishajay Kalpana, IBH prakashan, Banglour III<sup>rd</sup> edition:2006(India)*
6. *Horwitz, William AOAC, (official methods of analysis of Association of official agricultural chemist 9<sup>th</sup> Edition, 1960.*
7. *WHO (World Health Organization), Quality control methods for medicinal plant material, Geneva, 1998.*
8. *Anonymous, Indian, pharmacopoeia, Vol, I- II, 1996.*
9. *Protocol for testing Ayurvedic medicine, Dr. Lohar, Government of India, Department of AYUSH, Ministry of Health & family welfare, Pharmacopoeal Laboratory for Indian Medicine Ghaziabad Haritaki churna*



## HRIVERA THE MULTI PURPOSE HERB

• Dr. G.V.Karunakar

### ABSTRACT

Vetiveria is an important drug in the indigenous systems of Medicine, Its Roots are included in the single drug list of the Ayurvedic formulary of India, as Hriversa in Sanskrit, Kuruver in Tamil. It is cultivated mainly in certain places of Tamil Nadu. Since Not much information is available on this plant. The Pharmacognostical aspects along with microscopical characteristic of the Roots are studied for the sake of to know the multi purpose uses of the Roots.

Commonly known as vetiver, is a perennial grass of the poaceae family, Native to India, In western and Northern India, it is popularly known as KHUS. Also have the synonyms like Ushira, Nalada, Amrinala in Sanskrit.

**Key words:** Vetivera, Kuruver, Hriversa

### Introduction:

The Vetiver grass has a gregarious Habit and lives in bunches. Shoots growing from the underground crown make the plant frost and fire resistant and allow it to survive heavy grazing pressure. Under clear water, the plant can survive up to 2 months.

The Root system of vetiver is finely structured and very strong. It can grow 3-4 Meters deep within the first year.

Vetiver has no stolons nor Rhizomes because of all these characteristics, the vetiver plant is Highly

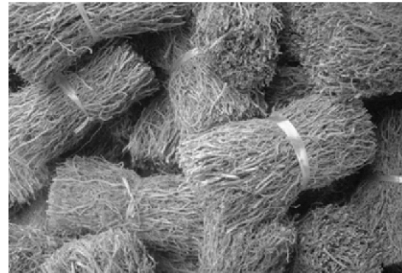
drought tolerant and can help to protect soil against sheet erosion. In case of sediment deposition, New Roots can grow out of buried Nodes, is the Advantage of this plant, It can survive and cultivate any where in the country easily with less expenditure is Highly noticeable.



**Vetiveria Plant**



**Vetiveria Root**



**Fibrous Root**

■ Assistant Professor, Agada Tantra Department, SJSA. College, Kancheepuram University, Chennai (T.N.)





### Distribution

It is found throughout the plains and lower hills of India, Particularly on the River banks and in Rich marshy soil, ascending to an altitude of 1200 m, grows wild in Haryana, Uttar Pradesh, Rajasthan, Gujarat, Bihar, Orissa, Assam, Madhya Pradesh and Highly cultivated and obtained from south India particularly from Tamil Nadu.

### Pharmacology:

#### Ayurvedic Properties

Rasa : Tikta, Madhura

Guna : Laghu, Snidha

Veerya : Sheeta

Vipaka : Madhura

Doshagnata : Vatapitta Shamaka

Rogaghmata : Daha, Murcha, Trishna, Raktapitta,

Visha condition

Karma : Dahaprashamana, Vishaghna

### PHARMACOGNOSY OF THE ROOTS:

#### Materials and Methods

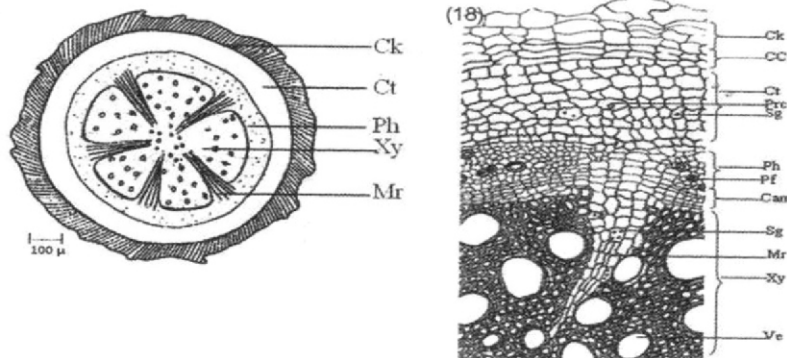
Roots are fibrous, wiry, up to 2mm in

Diameter longitudinally grooved, cream, grey or light yellow to brown in colour, odour strong aromatic, taste slightly bitter.

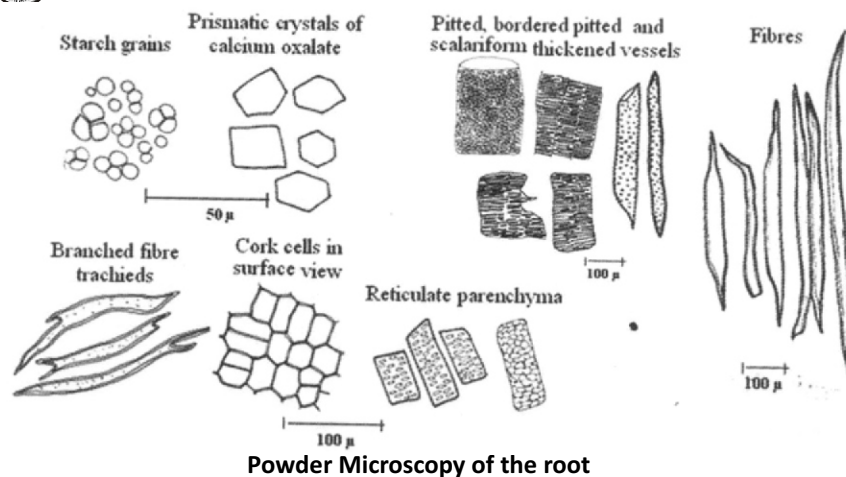
The Dried Roots of Vettiver are an important Drug used in Ayurveda and Siddha systems of medicine. Kuruvu was cultivated on a large scale originally in North Arcot, Coimbatore, Madurai, Thanjavur, and Tirunelveli districts in Tamil-Nadu. Roots are harvested once in three months easily anywhere out of any type of climatic conditions respectively.

#### Collection of Roots:

They are not uprooted by pulling them out of the soil, and care is taken to avoid damage or loss of roots. The roots are cut just above the root stock. The cluster of roots are loosened gradually and carefully by flooding the underground part with water and working with hands to release the root cluster from the sandy soil. They are then carefully washed free of adhering soil, drained and dried in shade. The dried and fragrant roots are packed in



TS Root of Vetiveria Diagrammatic



gunny Bags and stored in shelves.

#### OBSERVATION AND RESULTS

Transverse section shows an epidermis composed of Tangentially elongated cells having brownish content, followed by a layer of Hypodermis of thin-walled cells, similar to epidermis, cortex consisting of 2-3 layers of thick-walled, lignified sclerenchymatous cells towards periphery and aerenchymatous cells towards centre, single layered endodermis with highly thickened inner walls, many layered pericycle with thick-walled sclerenchymatous cells enclosing radial vascular bundles arranged in a Ring. Simple starch grains measuring 8-12 $\mu$  in Diameter are

**Table No : 1**

S.No	Description	Percentage
1.	TOTAL ASH	9 %
2.	ACID INSOLUBLE ASH	6%
3.	ALCOHOL SOLUBLE EXTRACT	4%
4.	WATER SOLUBLE EXTRACT	5%
5.	VOLATILE OIL	1 %

present in Aerenchyma, Pericycle and pithcells.

#### PHYSICAL CONSTANTS:

#### MICROSCOPIC CHARACTERS:

Powder of crude Drugs requires special examination using Pharmacognostic methods. While the analysis and Identification of whole crude drugs of the Ayurveda, siddha and unani systems present No complications, powders are so easily identified as to their origin particularly when they are added in that form to the compound formulation, containing several other ingredients with similar anatomical features.

Therefore the Diagnostic characteristics by which a powder can be traced to its plant source and Distinguished from closely resembling allied drugs is an important part of pharmacognosy of any crude drug of ASU systems.

A moderately fine powder of the Root is brown coloured, smooth, odour Aromatic, No specific taste for Microscopic characters a small quantity of



powder is treated in chloralhydrate solution, washed and mounted in glycerin, another small portion is treated with Iodine in Potassium iodide solution, washed and mounted in glycerin, a few mg of powder is stained with phloroglucinol, allowed to dry and conhydrochloric acid added before washing and mounting in glycerin, a few mg of powder in boiled in 2% aqueous potassium hydroxide, washed in water, and mounted in glycerin.

The following features are observed using both

repellent, Diuretic, Juvenile Hormone like activity, Antifungal

#### DISCUSSION:

Vetiver is Basically Insecticidal, Antifeedant, excellent insect repellent, Diuretic, Juvenile Hormone like activity, anti fungal are the Pharmacological activities.

#### THE MULTIPURPOSE USES OF VETIVER

1. The plants helps to stabilise soil and protects it against soil erosion.

Table No: 2

S.NO	Plant Part	Shape	Size
1.	Strach grains are	Circular to oval shape	20 µm Size
2.	Prismatic	crystals of oxalate	30µm size
3.	Thin walled	lignified fibers	970 µm in length and with out anybranching
4.	Pitted and scalariform thickened vessels	-	600 µm in length
5.	Xylem parenchyma	-	identified by colour stain
6.	Cork cells	-	identified by colour stain
7.	Stone cells	-	containing rhomboid crystals of calcium oxalate
8.	Xylem	-	Reticulated parenchyma cells identified by stain

low and high power of research type microscope capable of giving magnification up to 500x.

#### CHEMICAL CONSTITUENTS:

Vetiver oil or khus oil is a complex oil containing over 100 identified components, typically, khusol, khusinol oxide, khusimol, khusenic acid, vitiselinol, zizanol, C<sub>12</sub> ketones, epizizanoic acid and cascarilladienol.

#### Actions and uses:

Insecticidal, Antifeedant, Excellent insect

2. Conservation of water by stabilizing hedge for stream banks, terraces and Rice peddies
3. The roots bind to the soil there fore it cannot Dislodge
4. The plant also penetrates and loosens compacted soils
5. Runoff migration of water Particularley surface water we can save. It slows waters flow velocity and increases the amount absorbed by the soil (Infiltration). It can with stand a flow velocity up to 5



meters / second (16 ft /second)

6. It reduces evaporation, thus vetiver protects the soil moisture under Hot and dry conditions.

7. Crop protection It builds a Barrier in form of a thick matt so vetiver is used for weed control in cocoa and Tea plantations.

8. Animal Feed:

The leaves of vetiver are a useful by product to feed cattle, goats, sheep and horses. The

**Table No : 3**

S.NO		YOUNG VETIVER	MATURE VETIVER	OLD VETIVER
1.	ENERGY (KCAL /Kg)	522	706	969
2.	Digestibility (%)	51	50	-
3.	Protein (%)	13.1	7.93	6.66
4.	Fat (%)	3.05	1.30	1.40

Nutritional content depends on season, growth stage and soil fertility under most climates, Nutritional values and yields are best if vetiver is cut every 1-3 months.

1. Perfumery and Aromatherapy:

Vetiver is mainly cultivated for the fragrant essential oil Distilled from its Roots. Bourbon vetiver, is famous one.

2. Essential oil

The oil is amber brown and Rather thick. The odor of Vetiver oil is Described as Deep, Sweet, Woody, Smoky, Earthy, Amber, Balsam. The Best Quality oil is obtained from Roots that are 18 to 24 months old. The Distillation process can take up to 18 to 24 hours.

3. Medicinal use: Jwaraharam, Daha samaka,

Shadanga paneeyem ingredient

4. In House use - The straw or wood showing pads in evaporative coolers.

5. Fuel cleaning - A recent study, made in volcanic institute in Israel by Dr. Nativ Decdai found out that the plant is capable of growing in fuel contaminated ground. In addition to that, the study discovered that the plant is able to clean the ground is Highly valuable to avoid pollution.

6. Other uses:

- Vetiver grass is used as Roof thatch (it lasts longer than other materials)
- Mud brick making for housing construction (Such bricks have lower thermal conductivity)
- Strings and Ropes and ornaments (The light purple flowers)

7. Agricultural aspects: Absorbs dissolved Nutrients like N and P, is tolerant of sodicity, Magnesium, aluminium and Manganese to make land highly fertile.

8. Heavy metals poisoning : absorbs dissolved Heavy metals from polluted water, is tolerant to As, Cd, Cr, Ni, Pb, Hg, Se, and Zn. Useful to Avoid land Toxicity by chemicals and pollution Due to industries is Highly Effective and worthy.

9. Uses of Vetiver in Ayurveda and Siddha Formulations:

- Basically Vetiver Root powder as praksepa Dravya (addition of Drugs 'in Situ') in many processed formulations.
- The formulations are mostly for internal use,



and generally indicate a therapeutic activity in cases of G.I Disorders like Malabsorption, Flatulence, Diarrhoea or Dysentery and fever resulting from such G.I related syndromes.

- Externally the Taila and lepa formulations are used as emollients and plasters over painful areas.

10. Formulations and Preparations : Ushira Asava, Ushiradikavatha, Ushiradi churna, Ushiradya Taila, shadangapaniya, Sarva Jwarahara Lauha, Angamarda prashamana kashaya, Stanya janana kashaya churna, Yogara jagugglu.

#### **CONCLUSION:**

It is therefore believed that the information on the analytical characters of the Root *Vetiveroides* given in the paper will be useful for including in the Ayurvedic pharmacopoeia, both as a single drug, and for its detection in compound formulations, where they are an ingredient.

So by knowing the Root Analysis, Macroscopic, Microscopic and pharmacognosy of the *Vetivera* is useful in multipurpose as mentioned in this article a small effort was made to bring to the world its characters and to educate and create awareness in the public in highly notices and effort should be encourageable respectively.

#### **ACKNOWLEDGEMENT**

Author was very much thankful to the vice chancellor and Registrar for providing all research facilities in the campus that is Sri Chandra Sekharendra Saraswathi Vishwa Mahavidyalaya, Kancheepuram, and pada pranams to Sri Jayendra Saraswathi Swamigal for providing this opportunity,

very thankful for Agad Tandra Department, SJSA College Chennai in this regard for providing various materials respectively.

#### **REFERENCES:**

1. Flora of the presidency of Madras, Vol I and II by JS.Gamble and Fischer -CEC (Botanical survey of India Calcutta 1957).
2. The flora of the presidency of Bombay, Vol I and II (Botanical Survey of India) 1958.
3. Medicinal plants of India Vol I and II By SN.Yaganarasimhan (Regional Research Institute Bangalore 2000).
4. Plant microtechniques by OA.Johanson 1940.
5. Text Book of Pharmacognosy 15<sup>th</sup> edition by TE.Wallis 1967.
6. The wealth of India A dictionary of Indian Raw materials and Industrial Products Vol II CSIR New Delhi 1988.
7. Indian Medicinal plants Vol IV by PSV Vaidyaratnam (Orient Longman Ltd .HYD 1995).
8. Indian Medicinal Plants an illustrated Dictionary by CP.Khare 2007 Other uses and utilization of Vetiver central institute of medicinal and Aromatic plants Lucknow.
9. Wikipedia .Org.
10. The vetiver network International.
11. Ayurveda the Divine science of Life by Caldecott 2006.



## चरकावली (CHARAKAWALI)

### प्रथम सूत्र सोपान

● डॉ. रामतीर्थ शर्मा

(1)  
आयु का जहां है ज्ञान आयुर्वेद विज्ञान  
कहते सभी उसे धरा के विद्वान हैं  
हित औ अहित सुख दुःख आयु के है मान  
कहे हैं जहाँ पर वो आयुर्विज्ञान है  
धर्म अर्थ काम मोक्ष चारों पुरुषार्थ है,  
मूल में तो इनके आरोग्य का धाम है,  
पुनर्वसु ने जो था ज्ञान दिया शिष्यों को  
चरक संहिता में पूरण बखान है।

(2)  
दुखी थे बीमारियों से प्राणी जब धरती के  
ऋषि और मुनियों को आया तब ध्यान है।  
हिमवत पास ऋषियों ने जब की है सभा  
तब ऋषियों ने किया था ये संवाद है।  
देवराज है शरण्य और हैं अमरप्रभु  
इन्हीं से मिलेगा हमें आयुर्वेद ज्ञान है।  
कौन हो नियुक्त जाने के लिए जी देवलोक  
भरद्वाज बोले ये तो मेरा संधान हैं।

(3)  
शचिपति सहस्राक्ष थे वो इन्द्र देवराज  
इनके जो गुरु होते अश्विनी कुमार हैं  
उनके भी गुरु प्रजापति दक्ष होते हैं  
पर ब्रह्मा जी के शब्द आदि उद्गार हैं  
गुरु ऋण से उऋण होने का ये आया समय  
आयुर्वेद ही तो भूतदया का आधार है  
सूत्ररूप में कहुंगा सुनो जरा ध्यान से ये  
हेतु लिंग औ औषध आयुर्वेद सार है।

(4)  
अग्निवेश और भेल पराशर जतुकर्ण  
हारीत और क्षारपाणि शिष्य वे महान हैं।

पहले पहल निर्माण किया ग्रन्थ का  
क्योंकि अग्निवेश ही विशेष विद्वान हैं।  
सामान्य विशेष द्रव्य गुण कर्म समवाय  
भाव पदार्थों के सकल निधान हैं।  
दोष, रोग आयतन दोनो तीन होते हैं।  
पहले चार पाठो मे भेषज विज्ञान हैं।

(5)  
अन्दर के शोधन को तण्डुलीय चिरचिटा,  
आरग्वधी मे कहा लेपों का विधान है।  
ऊपर और नीचे का शोधन किया छः सौ से  
पॉच सौ कषायों का सकल विज्ञान है।  
रोगी के लिए जरूरी होती पहिले औषधि।  
औषधि के बाद स्वस्थ चतुष्क का ज्ञान है  
अग्नि के बल देख कर सब भोज करें।  
मात्रा शिती तो स्वास्थ्य नियमों की खान है।

(6)  
वर्ष एक बारहमास काल दो ऋतु हैं छह  
तस्याशिती कहे ऋतुओं का खानपान है।  
धारणीय तीन तेराधारणीय वेग होते,  
इन्द्रियोपक्रपणीय मे सदवृत मान है।  
आतुरोपस्थाता औषधि चिकित्सक  
गुणवत् पाद ये चिकित्सक की जान है।  
कष्ट सुख याप्य रोग और असाध्य होते है।  
आत्रेय मैत्रेय का भी यह संवाद है।

(7)  
प्राण धन लोक एषणाएँ तीन होती हैं  
परलोक की सिद्धि मे चारो ही प्रमाण हैं।  
बलस्तम्भ आयतन रोग-मार्ग औषध  
भिषक समेत त्रिक आठों का ही ज्ञान है।  
परिषद में वायु की कलाकला देखने को

■ प्राध्यापक, शासकीय धन्वन्तरि आयुर्वेद महाविद्यालय, उज्जैन (M0P00)



ऋषियों के ज्ञान का आदान-प्रदान है।  
उक्त चारो पाठो में, महर्षि का निर्देश,  
निर्देश चतुष्क मे पूरण बखान है।

(8)

शोधन हेतु होती जरूरी बहु कल्पना  
अतः इसी नाम से ये चतुष्क विधान है।  
स्नेहन स्वेदन होते शोधन के पुर्वकर्म  
वमन विरेचन की विधि भी प्रधान है।  
रहे तैयार उपद्रवों से जो भिषक्  
प्राभृत चिकित्सक उसका ही नाम है  
औषध कल्पना युत गुणो से भिषक  
अगले चतुष्क मे रोगानुसंधान है।

(9)

रोगों की गणना हेतु पूछा अग्निवेश ने ये,  
सभी अंगो में मर्म तीन ही प्रधान है।  
तीनो मे भी शिर होता प्रभु! ये प्रधान क्यों है।  
प्राण और इन्द्रियों का क्योंकि आधान है।  
पॉच-पॉच शिर, हृद, सात होती पिडकाएं,  
क्षय अठार, बासठ भेदो का संज्ञान है।  
तीन शोथ विद्रधियां होती है अन्तर बहि  
सामान्यज रोग अष्टोदरी मे बखान है।

(10)

केवल एक दोष से ही पैदा होते हैं जो रोग  
नानात्मज उनको दिया ऋषि ने नाम है।  
अस्सी बीस औ चालीस होते दोषो के हैं रोग  
वात, कफ और पित्त क्रमशः विधान है।  
गुण कर्म स्थान और भेद को बताया है जो  
महारोग नाम वाले पाठ का ये काम है।  
रोगो का अधिष्ठान शरीर को बताया गया  
निद्रा वाले आठो शरीरो का तामझाम है

(11)

काला गोरा नाटा लम्बा, बालो का या हो  
अलोमा  
मोटे पतले विशेष, नही लोग आम है।

लहांन बृहण रूक्ष स्नेह स्वेद स्तम्भन।  
इन छहो से होती रोगी की रोकथाम है।  
ज्यादा और कम खाने से भी होते कई रोग  
है कहे जहाँ पर संतर्पणी नाम है।

फिर शोणित के रोगो को सचिकित्सा बतलाया।  
इन चारों को तो योजना चतुष्क नाम है

(12)

रस होते है कितने और द्रव्यगुण है क्या  
आत्रेय भद्रकाव्य ने सारा विचार है।  
पैछा होते है ये रोग और पुरुष कहाँ से  
यज्जपुरुषीय इसका आधार है।

हिततम अन्नपान, और अग्रम बतलाए  
आसवो का भी तो कहाँ यहाँ सार है।  
ऐसो खान-पान करे जो शरीर करे खराब  
उसका ही नाम विरुद्ध आधार है।

(13)

यूथशमी मॉस फल हरि मघ आब  
इक्षुकृत गो आहार बारह का बखान है।  
सारा अन्नपान मे बताया इसी पाठ मे है।  
आगे अक्षित विविध पान का विधान है।  
अशित खडित लीठ पीत भोजन ये चार।  
इनसे पैदा हुआ शरीर का विकार है।  
धातु प्रदोषज रोग औ इलाज बतलाया  
अन्नपान चतुष्क मे सारा व्याख्यान है।

(14)

आखिरी के दोनो पाठ, कहे है संग्रह द्वय  
प्रथम प्राणो के आधार रस गाए है।  
रोग औ प्राणाभिसर वैद्यों के है गुण कहे  
हृदय मे दशमहामूल भी बताए है।  
वीर्य विघा बलादि श्रेष्ठ भाव बतलाए।  
आगे वेद के भी आठ प्रश्न पुछवाये है।  
संहिता के सारे पाठो के बताए यहाँ नाम।  
तन्त्र का ये शिर शुभ गुरु ने बताया सुत्र को  
ही गाए हैं।



# AYURVEDIC VIEW OF AETIOPATHOGENESIS OF MADHUMEHA (DIABETES MELLITUS) AND IT'S RELATION WITH MEDOROG (OBESITY)

• Dr. Ramesh Kant Dubey\*

*Nidana, Samprapti, Medorog, Obesity, Prameha*

## Abstract

There are 20 types of *Prameha* mentioned in *Ayurveda*. Of these *Madhumeha* is caused predominantly by vitiation of *vata*. It is characterized by passage of excessive quantity of urine resembling honey in taste and color along with sweetness of whole body. The provocation of *vata* is either directly by its causative factors or by the *avarana* of *kapha* and *pitta* to its path. *Madhumeha* has been classified by *Vagbhata* into two categories viz. *dhatuksayajanya* and *avaranjanya Madhumeha*. The former type is the result of provocation of *vata* by continuous use of factors causing *aptarpana* and is *asadhya*. The latter type is caused by vitiation of *kapha* and *pitta* by factors leading to *samtarpana* and *kastasadhya* i.e. curable by extensive treatment.

*Madhumeha* resembles with Diabetes mellitus which is a metabolic disorder of carbohydrate, protein and fat caused by absolute or relative deficiency of insulin. There are two types of Diabetes mellitus. Type I diabetics are asthenic and suffer from the disease in early years of life. It may be correlated with *dhatuksayajanya Madhumeha*. Type 2 patients are mostly obese and suffer from it generally after age of forty and managed easily by diet and exercise. It resembles to *avaranjanya Madhumeha*. The present conceptual study is planned to understand the etiopathogenesis of *Madhumeha* described in *Ayurveda* in correlation with modern knowledge of pathogenesis of diabetes mellitus.

**Key Words:** *Madhumeha*, Diabetes mellitus,

## Introduction

*Prameha* is one of the chronic diseases described in *Ayurvedic* texts. There are twenty types of *prameha* and *Madhumeha* is considered under *vataja* category. *Madhumeha* is the incurable and advanced stage of *prameha* characterized by excretion of urine which resembles honey in taste and characteristics and also accompanied by sweetness of whole body of the patient. *Prameha* has been mentioned as *anusangi roga* (adherent disease) by *Charaka* and *santarpanajanya roga* caused by saturation of body due to overeating by *Astanga Hridaya*. *Chakrapani Datta*, the commentator of *Charaka Samhita* further elaborated the term '*Anusangi*' that '*Anushangi punarbhavi*' which indicates the recurrent tendency of disorder. That is why *Madhumeha* is '*Yapya*' (difficult to treat) disease. *Prameha* is one of eight *Maharogas*. *Susruta* also described *Madhumeha* as '*Medo dustijanya vikara (disorder of fat/lipid)*'

*Prameha* includes clinical conditions involving prediabetes, diabetes mellitus and obesity. Integration of the theory and modalities of *Ayurveda* in the management of these disorders may prove to be beneficial. *Prameha* is characterized by *Prabhutavil Mutrata* i.e. passage of excessive and turbid urine. There are 20 types of *Prameha* resulting from the interaction of the three *Doshas* and 10 *Dushyas* meda, *mansa*, *kleda*, *shukra*, *shonita*, *rasa*, *vasa*, *majja*, *lasika* and *oja*. In fact 20 types of *Prameha* refer to 20 types of

■ Lecturer, Deptt. Of Swasthavritta, Govt Ayurvedic College & Hospital, Atarra, Dist Banda, (U.P)





physical abnormalities of urine which may come across in different patients with or without association of diabetes mellitus. This disease has close relationship with *Sthaulya*. With regard to diabetes mellitus, *Sahaja* and *Jatah Pramehi* correlate with type 1 diabetes; *Apathyanimittaja Prameha* correlates with type 2 diabetes. *Madhumeha* can occur as the terminal stage of type 2 diabetes, or as type 1 diabetes beginning in early childhood. Various dietary, lifestyle, and psychologic factors are involved in the etiology of *Prameha*, particularly in relation to disturbances in fat and carbohydrate metabolism.

#### **Aetiology of Madhumeha**

All the aetiological factors given in *Ayurvedic* texts can be classified into two groups viz. *samanya nidana* (general aetiology) and *visista nidana* (specific aetiology).

#### **General Aetiology :-**

Two factors i.e. *hereditary* and *dietetic* are generally responsible for causing the disease *prameha* and the patients are classified accordingly as *sahaja pramehi* and *apathyanimittaja pramehi*.

#### **i) Sahaja Prameha/Madhumeha :-**

*Prameha* has been mentioned as a *kulaja vikara* i.e. it has tendency of inheritance. It is the genetic defect which is inherited from one generation to another. *Sahaja* type of diseases may occur due to defect in *bija* or *bijabhaga* or *bijabhaga avayava*, which can be interpreted as spermatozoa/ovum or chromosomes or genes respectively. The over indulgence in *madhura* rasa by mother during pregnancy is responsible for inducing *prameha* in the child. *Chakrapani* has also narrated that the chief cause of defect in *bija* (spermatozoa or ovum) is *apathya sevana* by the parents. The genetic and dietetic factors both play a combined role in the manifestation of *sahaja prameha* or *Madhumeha*.

#### **ii) Apathya Nimittaja Prameha/Madumeha :-**

The general causative factors of *prameha*

including *kaphaja*, *pittaja*, and *vataja prameha* described in the *Ayurvedic* texts are responsible for vitiation of *dosa* leading to *prameha/Madhumeha*.

#### **SPECIFIC AETIOLOGY OF MADHUMEHA**

##### **AHARA**

*Excessive intake of*

1. *Guru dravya*
2. *Snigdha dravya*
3. *Amla dravya*
4. *Lavana rasa*
5. *Nava anna*
6. *Nava pana*

##### **VIHARA**

*Excessive indulgence in*

- Nidra*
- Asya sukha*
- Tyakta vyayama*
- Tyakta chinta*
- Samsodhana akurvata*

It can be concluded that *dadhi*, *paya*, *nava anna*, *nava pana*, *guda vikrti* and *gramya*, *anupa*, *audaka mamsa* have been described as aetiological factors of *prameha* in all *Ayurvedic* Texts. *Susruta* has described *drava ahara* specifically, while *Ashtanga Hridaya* has mentioned *picchil* dravya as causative factor of *prameha*. All the classical texts have given specific stress on lack of exercise, sedantary life style and the consumption of diets having high caloric value as important predisposing factors for *Madhumeha*.

#### **SAMPRATI (PATHOGENESIS) OF MADHUMEHA -**

*Medhumeha* is advanced stage of other types of *prameha* which arises due to negligence of treatment according to *Susruta*, whereas *Vagbhata* has described two types of *Madhumeha* on the basis of pathogenesis i.e. (a) *Dhatuksayajanya* and (b) *Avaranajanya*. Different types of permutation and combination of vitiated *kapha* and *bahu abaddha meda* comes in contact either with *mamsa* or *kleda* (or both) because both of them are already increased in quantity. If the vitiation of *mamsa dhatu* occur *prameha pidika* (carbuncles) and *putimamsa* are manifested. Otherwise contact of vitiated *kapha* and *meda* directly with *sharira kleda* leads to conversion of the latter into *mutra*. During this process the vitiated *kapha* obstructs the openings of *mutravaha srotasa* which are already



filled with vitiated *meda* and *kleda*, subsequently producing the disease *prameha*. Excessive indulgence in the aetiological factors of *prameha* result in, *aparipakva vata*, *pitta* and *kapha* which along with *meda* further proceed downward through the *mutravaha srotas* to get localized at *basti mukha* and thus leads to *prameha*.

The different aspects of *Madhumeha* is explained below :

**1. Madhumeha due to Suddha Vata:**

In *Charaka chikitsasthana*, it is mentioned that *Vata* dosha gets provoked by *vatakara nidana* leading to *ksaya* of *dosha* (*kapha*, *pitta*) and *sarabhuta* dhatus like *vasa*, *majja*, *lasika* and *oja*. *Vata* further gets provoked due to *ksaya* of dhatus. This highly provoked *vata* carries *oja* towards *basti* and thus leading to *Madhumeha*. It is *asadhya* (incurable).

**2. Apratkarita Vatanubandhita Madhumeha :**

It is not a separate entity but it may be an advanced stage of *kaphaja* or *pittaja prameha* due to *dirghakala anubandha* or an ignored stage of *prameha* without proper treatment.

**3. Dhatuksayajanya Madhumeha :**

Due to *ksaya* of vital *dhatus vata* gets provoked which leads to excretion of urine resembling honey and *Madhumeha* is produced.

**4. Avaranajanya Madhumeha :**

Excessive intake of unctuous substances, articles having acidic and salty taste, *guru*, *snigha ahara* etc. and indulgence in excessive sleep and sedentary habits etc. lead to excessive increase of *kapha*, *pitta*, *meda* and *mamsa* which causes *srotorodha* leading to *avarana* of *vata*. This vitiated *vata* carries the *oja* to *basti* resulting in *Madhumeha* and appearance of the symptoms of *vata*, *pitta* and *kapha* alternately and frequently.

**SAMPRAPTI GHATAKA OF MADHUMEHA**

**Dosha** - *Tridosha* (*kapha* predominant)

**Dushya** - *Meda*, *Rakta*, *Sukra*, *Ambu*, *Vasa*, *Lasika*,

*Majja*, *Rasa*, *Oja*, *Mamsa*, (*meda visesa*); *Sveda*  
**Srotasa** - *Mutravaha*, *Udakavaha* and *Medovaha*  
**Sroto Dusti** - *Atipravrtti*

**Adhishthana** - *Basti*

**Agni** - *Dhatvagnimandya*

**Udbhavasthana** - *Amasaya*

**PRAMEHA & MADHUMEHA VERSES DIABETES MELLITUS**

*Prameha* is characterized by *Prabhutavil Mutrata* i.e. passage of excessive and turbid urine. *Prabhutmutrata* is more due to metabolic changes and *avilmutrata* is due to urinary changes. *Prameha* in later stages becomes converted into *Madhumeha* which is incurable as patient requires continuous treatment for controlling the disease. *Diabetes mellitus resembles madhumeha*. It is a chronic carbohydrate metabolic disorder characterized by hyperglycemia with or without glycosuria resulting from absolute or relative deficiency of insulin. It may be accompanied by other biochemical disturbances and presence of progressive diabetic tissue damage. *Charaka* and *Chakrapani* opined that *Kapha dosha* is dominant.

*Prameha* has been mentioned as a *kulaja vikara* i.e. it has tendency of inheritance. In identical twin studies the concordance rate for NIDDM is around 90% in contrast to 50% or less in IDDM. Thus concordance rates are higher than 40% in sibs and non identical twins. *Charaka* has mentioned *Dadhi* and other products of the milk as risk factors for development of *Prameha*. Excess intake of milk and its by products may be responsible for DM due to high calories. Beside this, Bovine serum albumin (BSA), a major constituent of cow's milk, has been implicated in triggering type 1 diabetes. Various nitrosamine (found in smoked meats) and coffee have been proposed as potentially diabetogenic factors. Overeating especially when combined with obesity and under activity is associated with the development of Type 2 DM. Obesity probably acts



as a diabetogenic factor in those genetically predisposed to develop type 2 diabetes. Westernized diet with an excess of energy dense, saturated fat and refined carbohydrate rich foods are found responsible for NIDDM.

*Mamsa* is one of the main *Dusya* described by *Charaka* especially in *Kaphaja Prameha* and *Avaranjanya Madhumeha*. *Mamsa* and *Kapha* have similar qualities. They both give strength to the body. When get vitiated, *Mamsa* loses its normal consistency and develops *Shaithilya*. *Mamsa dushti* may be compared to deranged protein metabolism which is an integral part of Diabetes Mellitus. Increased Glucocorticoid activity has catabolic action on peripheral tissue protein releasing more amino acids in blood. Amino acid breakdown in liver results in increased production of urea and these free amino acids can be compared with *abadha mamsa*. *Putimamsa* and *pidaka* are the morbid states of *mamsa dhatu*. Two major changes take place in *mamsa dhatu* and these are protein degradation and reduction in its blood supply, along with these elevated blood sugar level form a favorable media for the growth and multiplication of the microorganism. The results are putrefaction and evolution of multiple septic foci in *mamsa dhatu*. *Kapha* and *Meda* resemble with each other in regard to functions. Both are generally vitiated by similar etiological factors.

In *Madhumeha* vitiation of *Meda* results by two ways. First is *Abadha*. Normal function of *Meda* is to produce *Dridhatva* i.e. compactness in the body. So this *Abadhatva* causes derangement in the structure of *Meda* producing *Shaithilya* in the body. This resembles with free fatty acid excess and second is *Bahu* (increased quantity).

*Majja Dhatu* is not vitiated in maximum extent but *Vata* causes its *Ksaya*. The Ketone bodies production due to excessive utilization of fat may be referred to the *dushti* of *vasa* and *majja*.

*Murccha* is the symptom occurs due to *dushti* of *majja* in Diabetes Mellitus. *Shukra* also get vitiated in the pathogenesis produces symptoms like *daurbalya* and *Krichhracrvyavayata*. Sexual impotency and testicular hypofunctions have been reported in Diabetes Mellitus. *Oja dushti* is mainly observed in *Vataja Prameha* i.e. *Ojomeha* (*Madhumeha*). Provoked *Vata* due to its own etiological factors or due to *Avaran* carries *Oja* towards *Basti* and excrete outside through urine so the symptoms of *Ojaksaya* manifests, like *Gurugatrata*, *Nidra*, *Tandra* and *Daurbalya*. *Kleda* is one of major components involved in the pathogenesis. The physiology of *Kleda* is mainly related with *Mutra* and *Sweda* along with *Meda*. In normal physiology *Mutra* and *Sweda* maintain the balance of *Kleda*. The symptoms which manifest due to *Kleda* vitiation are *Prabhutamutrata*, *Swedavridhi*, *Shaithilya* and *Daurgandhya*.

#### **MADHUMEHA & OBESITY**

*Prameha* and *Medoroga* both are *Santarpanotha Vyadhis*. It has been quoted that when a pregnant female indulges in *Santarpanotha Nidana*, the child may have tendency to develop both *Atihsthaulya* and *Prameha*. Also in the *Chikitsa Sutra* of *Prameha* '*Sthula Pramehi*' has been described. It has also been said that *Purvarupa* of *Prameha* arise due to *Medo Dusti* and are called as *Rupa* of *Medoroga*. So far the etiopathogenesis of both diseases is concerned, it is observed that in *Medoroga Kapha* is the predominant *Dosha* which vitiates *Meda*. In *Prameha* too, *Kapha* is the predominant *Dosha* which is increased in amount and liquidity and it vitiates *Medo Dhatu* which further vitiates the other *Dhatu*. Hence, an inter relation is found between the two diseases. *Sthula Purush* is prone to develop *Prameha*.

#### **DISCUSSION & CONCLUSION**

The sedentary life style along with changed



food habit has lead in the emergence of many diseases and one of them is *Madhumeha*. Though *Madhumeha* is a disease known since ancient times to the mankind, its increasing number is quiet alarming. *Prameha* is characterized by increased quantity and frequency of urine as well as changes in characteristics of urine and 20 types of *Prameha* indicate 20 types of urinary abnormalities which may or may not be associated with diabetes mellitus. All types of *prameha* if remain untreated may get converted into *Madhumeha*. *Madhumeha* can be correlated to the features of Diabetes mellitus. D.M. is a metabolic disorder of carbohydrate, fat, & protein characterized by hyperglycemia with or without glycosuria. At the present time there is no known cure for DM and even with proper medical management; prognosis may still be poor due to irreversible major impairments or severe disabilities. It is most often treated with diet and exercise along with oral hyperglycemic drugs (OHD) and insulin. Oral hypoglycemic agents and insulin used for the treatment of diabetes mellitus by the allopathic system of medicine have numerous side effects. *Ayurveda* because of its holistic approach not only aims to achieve strict glycemc control but also treat root cause of the disease.

*Ayurveda* can provide better management for *Madhumeha* without hazardous side effects. In *Ayurveda*, *Madhumeha* has been described as one among one of the 20 types of *Prameha* and is a sub-type of *Vatika Prameha*. The *Vata* may be provoked either directly by its etiological factors, by *Avarana* of *Kapha* and *Pitta* to *Vayu* or by *Dhatukshaya*. *Vagbhatta* has classified *Madhumeha* into two categories viz. *Dhatukshayajanya Madhumeha* and *Avaranajanya Madhumeha*. The factors which provoke *Vata* directly cause *Apatarpanajanya Madhumeha* and the factors which provoke *Kapha*

and *Pitta* cause *Santarpanajanya Madhumeha*. In the former type the patients are usually asthenic can be correlated with Type I DM and in the latter type patients are obese and can be equated with Type II DM Under the *Samprapti* of *Santarpanajanya Madhumeha* or in *Sthula Madhumehi* the vitiated *Kapha* and *Pitta* obstruct the Path of *Vata* causing its provocation. For successful treatment of any disease it is desirable to establish the etiopathogenesis of the disease because it is essential for breaking up of the chain of pathogenesis. Understanding *ayurvedic* view of the etiopathogenesis of *Madhumeha* in integration with modern science will help in developing proper dietary and life style modification in the form of *Nidan parivarjana*, because 50% of cases of diabetes mellitus respond well to diet and exercise regimens.

#### References

1. Shastri A.D., *Susruta Samhita with commentary*, Chaukhanbha Surbharti Prakashan, Varanasi, **2003**, 255
2. Vaidya. Lal Chandra, *Astanga Hridaya with Commentary*, Moti Lal Banarasi Dass Publishers, Delhi., 1st reprint, **1990**, 324
3. Tripathi Brahmanand, *Charaka Samhita wirh commentary*, Chaukhambha Surbharti Prakashana, Varanasi., reprint edition, vol. 1, **1991**, *sutrasthana chapter 25, Shloka 40*
4. Shastri K.N., *Charaka Samhita with Commentary*, Chaukhambha Vaidya Bhawan, Varanasi, 22nd Edition, 1996, 501-7
5. Shah Siddharta N : Editor-in-Chief, **API Textbook of Medicine**, published by the Association Of Physicians Of India, Distribution : National Book Depot, Parel, Mumbai 400012 , 7th edition, **2005**, 990



## सन्तर्पणजन्य प्रमेह हेतुविचार-वर्तमान परिप्रेक्ष्य में विश्लेषणात्मक विवेचन

• \*वैद्य प्रदीप शिवराम पवार, \*\*वैद्य असित कुमार पांजा, \*\*\*प्रोफेसर ओम् प्रकाश उपाध्याय  
सारांश— संक्षिप्त शब्द—

वर्तमान समय में परिवर्तित जीवनशैली, आहारशैली, विहारशैली एवं पाश्चात्य संस्कृती का अन्धानुकरण इत्यादि तथा प्रत्येक क्षेत्र में दृष्टिगोचर अत्याधिक स्पर्धा के कारण उत्पन्न मानसिक तथा शारीरिक दबाव के परिणामस्वरूप समाज में अनेक याप्य तथा दुरुपक्रम्य व्याधियों का अत्याधिक रूप में सूत्रपात हुआ है तथा द्रुतप्रसार हो रहा है। शरीर एवं मन ये उभयरूप से व्याधि तथा स्वास्थ्य दोनों के निमित्त आश्रय है। शरीर एवं मन दोनों को समानरूप से पीडा देने वाले तथा आधुनिक जीवनशैली के अति अन्धानुकरण से जनित, पुष्पित तथा फलित विकारों में प्रमेह (मधुमेह) अग्रगण्य है। प्रमेह साम्प्रत कालीन समाज में वैद्य तथा आतुर उभय के लिये चिन्ता का प्रधान विषय है। प्रमेह व्याधि जिन कारणों से स्वस्थ व्यक्ति के स्वास्थ्य पर आक्रमण कर उसे आक्रान्त कर आतुरावस्था में परिवर्तित कर देता है वे प्रमेह के हेतु कहलाते हैं। प्रमेह के आकर ग्रन्थों में दो प्रकार परिगणित किये गये हैं, सन्तर्पणजन्य तथा अपतर्पणजन्य। आयुर्वेदीय आर्ष ग्रन्थों में प्रमेह के हेतुओं का विस्तृत एवं वैज्ञानिक विश्लेषण दृष्टिगोचर होता है। इन वर्णित प्रमेह हेतुओं का वर्तमान एवं आधुनिक विज्ञान के परिप्रेक्ष्य में कार्य-कारण भाव की आधारशिला पर विवेचन करना चिकित्सा के दृष्टिकोन से आवश्यक है। यह विवेचन करना ही इस विश्लेषण की प्रधानभूत आधारशिला है।

प्रमेह, हेतु, आहारज, विहारज, कफ प्रस्तुत विवेचन की आवश्यकता

स्वस्थ व्यक्ति का स्वास्थ्यानुबन्ध अविरत अवस्था में रखना तथा आतुर व्यक्ति का सम्यक प्रशमन करना ये उभय आयुर्वेद के प्रयोजन हैं। उभय प्रयोजन साध्य करने निमित्त हेतु विचार अत्यन्त आवश्यक है। संक्षेपरूप में निदान परिवर्जन ही चिकित्सा का अन्तिम सत्य है। यदि हेतुओं का निःशेष तथा सम्यक ज्ञान प्राप्त नहीं होता है तो व्याधि की चिकित्सा असम्भव है। अतः प्रमेह व्याधि के प्रसंग में भी हेतुविचार के बिना अन्य कोई भी चिकित्सोपक्रम सम्भव नहीं है।

विषयप्रवेश—

प्रमेह यह संज्ञा इस व्याधि को प्राप्त होने का कारण यह है कि इस व्याधि में व्यक्ति प्रकर्ष अर्थात् अधिक मात्रा में तथा वारंवार अर्थात् अधिक बार मूत्र का त्याग करता है, तथा इस व्याधि से ग्रस्त व्यक्ति को प्रमेही कहा जाता है।

हेतुविचार—

जैसे कि पूर्व में कहा जा चुका है कि हेतु, निदान तथा कारण परस्पर पर्यायवाची शब्द हैं, जो आहार एवं विहार सेवन करने के परिणामस्वरूप प्रमेह व्याधि का आक्रमण होता है वे सर्व हेतु के अन्तर्गत अन्तर्भूत होते हैं। आचार्य चरक ने निम्नांकित हेतु वर्णन किये हैं—

आस्यासुखं स्वप्नसुखं दधीनि ग्राम्यौदकानूपरसाः पयांसि।

\*Dept of Basic Principles, PMT's Ayurveda Medical College, Shevgaon, Ahmednagar (MH)

\*\*Dept of Basic Principles, National Institute of Ayurveda, Jaipur (RJ)

\*\*\*Honorable Vice Chancellor, Guru Ravidas Ayurved Vishwa-Vidyalaya, Hoshiarpur, (Panjab)



नवान्नपानं गुडवैकृतं च प्रमेहहेतुः, कफकृच्च सर्वम् ॥ च.चि. 6/4

यद्यपि प्रमेह के अन्य भी अनेक आचार्य चरक ने निदानस्थान में तथा आचार्य सुश्रुत ने वर्णन किये हैं, तथापि प्राधान्यतः महत्वपूर्ण एवं सर्व वर्णित हेतुओं का प्रतिनिधित्व करने वाले निदानों का इस प्रसंग में विवेचन करना विस्तारभय के कारण युक्तिसंगत दृष्टिगोचर होता है। हेतुओं को प्रायः दो विभागों में विभक्त कर विवेचन सम्भव है।

- 1) आहारज निदान
- 2) विहारज निदान

हेतुविवेचन के समय विहारज हेतुओं का विवेचन प्रथम करने का अभिप्राय यह है कि प्रमेह प्रादुर्भाव में विहारज हेतुओं का महत्व आहारज हेतुओं की अपेक्षा अधिक है। अतः विहारज हेतुओं का प्रथम विश्लेषण करना अभीष्ट है, जैसे आस्यासुखं, स्वप्नसुखं इत्यादि। अतः वर्णित हेतुओं को उपर्युक्त दो विभागों में विभक्त कर विवेचन किया जाता है।

- 1) विहारज हेतु

अ) आस्यासुख

आस्या अर्थात् आसन अर्थात् एक स्थान पर बिना किसी चेष्टा के सुखपूर्वक रहने में भक्ति होना। ऐसे व्यक्ति जो एक ही स्थान पर सुखपूर्वक बैठे रहते हैं वे भविष्य में प्रमेही होने की सम्भावना अधिक रहती है। आस्यासुख का निरन्तर सेवन करने से शरीर में श्लेष्मा की वृद्धि होती है तथा मांस एवं भेद धातुओं में शैथिल्य उत्पन्न होता है, जो कि प्रमेह सम्प्राप्ति के महत्वपूर्ण प्रसंगों में से एक है। वर्तमान समय में बड़ी कम्पनीयों में काम करने वाले, बैंकों में काम करने वाले तथा ऐसे सभी लोग जो कार्यालयीन कार्यव्यवस्था से संलग्न हैं, जिसके परिणामस्वरूप वे अपने शरीर की चेष्टायें करने में असमर्थ होते हैं ऐसे सर्व लोगों का

अन्तर्भाव इस हेतुसेवन में करना युक्तियुक्त प्रतीत होता है। अतः आस्यासुख यह प्रमेह सम्प्राप्ति की शृंखला में एक महत्वपूर्ण कड़ी है।

आ) स्वप्नसुख

विधिवर्जित अर्थात् शास्त्र में वर्णित निद्रा की सम्यक् विधि के विपरीत निद्रा का सेवन स्वप्नसुख कहलाता है। विधिविपरीत अर्थात् रात्रीसमय में जागरण करना तथा दिन में सोना। यह हेतु वर्तमान समय में अनेक व्याधियों के प्रधान कारणों में एक अग्रणी कारण है। साम्प्रतकाल जीवनशैली में लोग रात्री में विलम्बपर्यन्त जागरण करते हैं तथा दूसरे दिन देर तक सोते रहते हैं अर्थात् ब्राह्म मुहुर्त पर उठते नहीं हैं। स्त्रीवर्ग में जो महिलायें गृहिणी हैं, वे प्रायः दिवास्वाप का सेवन अधिकांशतः करती हैं। यह दिवास्वाप प्रायः भोजन के पश्चात् ही होता है। रात्री जागरण करने से शरीर में वातदोष अपने रूक्ष गुण से वृद्धि होता है। भोजनोत्तर दिवास्वाप यह मांसवह स्रोतस दुष्टी क प्रधान हेतु है। दिवास्वाप यह मेदोवह स्रोतस दुष्टी का भी हेतु है। मांस एवं मेद ये कफ के समान धर्मी धातु होने से इनकी दुष्टि आश्रयाश्रयी भाव से भी सिद्ध है। प्रमेह के सम्प्राप्ति घटकों में मांस एवं मेद ये दोनों अति महत्वपूर्ण हैं। अतः दिवास्वाप यह प्रमेह सम्प्राप्ति में तथा दिवास्वाप का सेवन न करना यह प्रमेह की सम्प्राप्ति विघटन में एक महत्वपूर्ण प्रसंग है।

इ) अब्यायाम

अधुनातन काल में यह केवल प्रमेह का ही नहीं अपितु प्रायः सर्व सन्तर्पणजन्य व्याधियों का महत्वपूर्ण हेतु है। परिवर्तित जीवनशैली के फलस्वरूप दिनचर्या में वर्णित आत्ययिक अत्यावश्यक विषयों के अतिरिक्त जैसे मलविसर्जन, दन्तधावन तथा स्नान आदी अतिआवश्यक विषयों के अतिरिक्त प्रायः सर्व



विषय दिनचर्या से बाहर किये गये हैं अर्थात् उनका पालन नहीं किया जाता। अव्यायाम से अव्यायामजन्य दोष जो कि लाभों से विपरीत हैं जैसे की मेदवृद्धि, मांस-मेद शैथिल्य निर्माण होंगे अतः अव्यायाम यह प्रमेह सम्प्राप्ति में अतिमहत्वपूर्ण हेतु हैं। तात्पर्य यह है कि व्यायाम (नित्य) प्रमेह सम्प्राप्तिविघटन में भी महत्वपूर्ण भूमिका प्रदान करता है, इस विधान की संस्तुति आधुनिक विज्ञान भी करता है। अतः अव्यायाम यह प्रमेह सम्प्राप्ति में तथा व्यायाम विधि यह प्रमेह चिकित्सा में अविभाज्य अंग है।

## 2) आहारज हेतु

आहारज हेतुओं का विचार करते समय ऐसे हेतु अथवा आहारिय द्रव्यों का विचार किया गया है जो शरीर में प्रवेश के पश्चात जल महाभूत अथवा तत्सम देहधातुओं की विकृत स्वरूप तथा विकृत परिमाण में वृद्धि करेंगे।

### अ) दधीनि

दधीनि यह शब्द अनेकवचन में प्रयोग किया है इसका अभिप्राय यह है कि केवल दधि ही नहीं बल्कि दधि से उत्पन्न सभी विकृतियों का इससे ग्रहण करना इष्ट है। इस प्रसंग में एक चिन्तनीय विषय यह है कि दधि अथवा दुग्ध विकृति इनको प्रमेह व्याधि का हेतु होने के लिये विधिरहित सेवन करना आवश्यक है। यदि इनका विधि के अनुसार तथा परिमाण में तथा स्वस्थावस्था में सेवन किया जाता है, तो ये प्रमेह की उत्पत्ति करने में प्रायः असमर्थ होते हैं। दधिविकृति जैसे वर्तमान समय में पनीर से निर्मित सभी उपविकृति, बिर्याणी (दधि प्रयोग), तथा दुग्धविकृति जैसे आइस्क्रिम, सर्व प्रकार के मिल्क शेक तथा अन्य सभी फ्रुट शेक आदि अनेक पदार्थों का समावेशन होता है। दधिविकृति प्रायः गुरु, अभिष्यन्दि, श्लेष्मावृद्धि करने वाले तथा श्लेष्मासमानधर्मी मांस-

मेदधातुओं एवं क्लेदस्वरूप में जल महाभूत की शरीर में विकृतावस्था में उत्पत्ति करते हैं। दधि तो शास्त्रोक्त अभिष्यन्दि द्रव्य का उदाहरण है। ये द्रव्य प्रायः मधुर एवं अम्ल रस के होने से तथा शीतवीर्य एवं मधुर-अम्ल विपाकी होते हैं अर्थात् रस-वीर्य-विपाक द्वारा श्लेष्मा की वृद्धि करने वाले होते हैं। इनका विधिरहित सेवन करने से ये प्रमेह सम्प्राप्ति में द्रव्य गुण से श्लेष्मा की वृद्धि करते हैं बहुद्रववान् श्लेष्मा ही दोषविशेष है।

### आ) ग्राम्य-औदक-आनूप मांस

ग्राम्य अर्थात् ग्राम में निवास करने वाले जैसे बकरी, कुक्कुट आदि, औदक अर्थात् प्रत्यक्षरूप से जल में निवास करने वाले यथा मत्स्य आदि तथा आनूप अर्थात् आनूप देश (जलप्रधान-वृष्टिबहुल) में निवास करने वाले प्राणि कहलाते हैं। ग्राम्य जीव ग्राम में निवास करने के कारण अल्पविचरणशील होते हैं अतः उनका मांस गुरु, अभिष्यन्दि तथा श्लेष्मावृद्धि करने वाला होता है। इसी प्रकार औदक तथा आनूप मांस में जल महाभूत की अधिकता के कारण प्रायः द्रव, स्निग्ध गुण से श्लेष्मा की वृद्धि करने वाले होते हैं। सम्प्राप्ति में महत्वपूर्ण प्रसंग के कारण है। वर्तमान समय में समाज में काल के प्रभाव तथा युगप्रभाव के कारण इस युग में धर्म का एक ही पाद शेष रहा है अर्थात् तीन पाद नष्ट हो चुके हैं, तथा रज एवं तम गुण का अत्यधिक प्रचार-प्रसार होने के परिणामस्वरूप समाज की राजसिक एवं तामसिक अन्न के सेवन के प्रति अभिरुचि में निरन्तर वृद्धि हो रही है। मांस प्रायः राजसिक एवं तामसिक उभय प्रकारों में अन्तर्भूत होता है। मत्स्य तथा सामुद्र जल में उत्पन्न अन्य अनेक जीवों के मांस का सेवन वर्तमान में प्रमेह प्रसार में महत्वपूर्ण हेतु है। सामुद्र जल में निवास करने वाले जीवों के मांस में प्रायः लवण रस का अंश भी होता है। लवण रस क्लेद



उत्पन्न करता है तथा रक्त एवं मांस में शिथिलता उत्पन्न करनेवाला होता है।

इ) नव अन्न-पान

नव अन्न का अभिप्राय धान्य उत्पत्ति के पश्चात् 1 संवत्सर पर्यन्त वह नव कहलाता है। उसके पश्चात् वह पुराण कहलाता है। नव-पुराण का वर्णन करने का अभिप्राय पांचभौतिक सिद्धान्त तथा पांचभौतिक समत्व से है। आर्ष महर्षियों ने ऐसे आहारद्रव्यों एवं विहारीय विषयों का सेवन करने का निर्देश किया है जो अग्नि के अनुकूल हो सकते हैं। हमारा मुख्य चिन्तनीय विषय अग्नि ही है, अग्नि की ही चिकित्सा करनी है। अतः सेवन करने योग्य भी ऐसे ही आहारद्रव्य पथ्यतम है जो अग्नि महाभूत के समान धर्मी तथा लघु गुण युक्त हैं। धान्य की उत्पत्ति के पश्चात् नूतन अवस्था में उसमें प्रायः पृथ्वी-जल महाभूत का अधिक्य रहता है अनन्तर काल के परिणाम के द्वारा जब वह पुराण हो जाता है उसमें वायु आकाश तथा अग्नि महाभूत का प्राधान्य दृष्टिगोचर होता है, हमारे लिये यही अभिप्रेत है। अतः आहार द्रव्यों का ग्रहण पुराण अवस्था में करना युक्ति एवं तर्कसंग है। आधुनिक काल में लोग प्रायः नव अन्नधान्यों का ही सेवन करते हैं। नव धान्य प्रायः गुरु, अभिष्यन्दि, अम्लविपाकी होने के कारण श्लेष्मा की वृद्धि करने वाले होते हैं। तथा नवपान से वर्षा ऋतु में संगृहीत जल है तथा शरत् ऋतु में वही उदक कालपरिणमन द्वारा पुराण कहलाता है। नव अन्नपान में उपस्थित पृथ्वी जल महाभूत से शरीर में सामान्य-विशेष सिद्धान्त के अनुसार श्लेष्मा की वृद्धि करते हैं जो प्रमेह का हेतु है। जल भी नवावस्था में गुरु तथा अभिष्यन्दि होता है अतः उसका सेवन अभीष्ट नहीं है।

ई) गुडविकृति

गुडविकृति में गुड से निर्मित सभी विकृतियों

का अन्तर्भाव होता है। गुडविकृतियों में फाणित आदियों का समावेश होता है। गुडविकृति प्रायः गुरु, अभिष्यन्दि, कृमिवर्धक होती है। वर्तमान समय में गुडनिर्मिति के समय उसका रूपवर्धन करने हेतु कुछ रासायनिक पदार्थ प्रयुक्त किये जाते हैं। जिसके परिणामस्वरूप गुड तो सुन्दर निर्माण होता है किन्तु उसमें प्रयुक्त विषद्रव्यों के गुण मिश्रित हो जाते हैं। ऐसा गुड भी सन्तर्पणजन्य विकारों का महत्वपूर्ण हेतु है। शास्त्रोक्त विधिद्वारा निर्मित तथा 1 संवत्सर पुराण गुड प्रयोगार्थ सर्वथा उचित है।

उ) कफकृत च सर्वम्

अन्तिमतः आचार्य चरक ने उपसंहार करते हुये यह कहा है कि वर्णित आस्यासुखादि हेतुओं के अतिरिक्त अन्य ऐसे कोई भी निदान जो कफदोष की शरीर में वृद्धि करेंगे वे सर्व प्रमेह के हेतु हैं। कफवृद्धि करने वाले रस मधुर, अम्ल, लवण तथा वीर्य-शीत एवं मधुर एवं अम्ल विपाक ऐसे द्रव्य जो उपर्युक्त रस वीर्य विपाकवान् हैं वे सभी कफदोष की वृद्धि करने वाले होते हैं।

साम्प्रतकालीन हेतु-

वर्तमान समय में समाज में प्रचलित कुछ हेतु तथा उनके गुण एवं सेवनजन्य परिणामों को निर्देशित किया जा रहा है। इस विषय पर अधिक अनुसन्धान एवं विश्लेषण की आवश्यकता प्रतीत होती है।

1) All fast foods

a) South Indian- Idaly, Dosa, Uttappa

गुण- प्रायः अम्लविपाकी, विदाही एवं पर्युषित

b) North Indian - kachori, samosa

गुण- प्रायः गुरु, विदाही

c) Chinese- pizza, nudals

गुण- प्रायः अभिष्यन्दि, अम्लविपाकी, पर्युषित

उपर्युक्त आहारद्रव्य प्रायः स्रोतरोधक तथा





आमदोष को उत्पन्न करने वाले हैं तथा अपाचित स्वरूप में मेदधातु की वृद्धि करते हैं। धातुपरिणमन प्रक्रिया को अत्यधिक प्रमाण में दुषित करने वाले हैं। वर्तमान समय में प्रायः अधिकतर समाज में इन द्रव्यों का प्रसार अत्यधिक रूप में हो चुका है। परिणामस्वरूप प्रमेह आदि कृच्छ्रसाध्य तथा याप्य व्याधियों का द्रुत प्रसार हो रहा है।

### 2) All bakery products

Breads, brown breads, All biscuit products, burgers

उपर्युक्त पदार्थ प्रायः पर्युषित, विदाही, अम्लविपाकी तथा गुरु होते हैं तथा धातुपरिपोषण क्रम हो दुषित करते हैं।

### 3) All cold drinks

Pepsi, Coca Cola, Thums Up etc. chilled plain water

समाज के उच्चवर्ग में यह हेतु अधिक दृष्टिगोचर होता है। वे प्रायः भोजन के समय अथवा अन्य किसी भी साधारण निमित्त पर शीतपेयों का अत्यधिक प्रयोग करते हैं। कुछ लोगों को अत्यधिक शीतजल सेवन का व्यसन होता है, वे शीतकाल में भी शीतजलपान करते हैं। इसके परिणामस्वरूप अग्निमान्द्य होता है, परिणामस्वरूप आमस्वरूप में धातुओं की उत्पत्ति तथा प्रमेहदि सन्तर्पणजन्य विकारों का सूत्रपात प्रारम्भ होता है। निष्कर्ष

प्रस्तुत चिन्तन के परिप्रेक्ष्य में यह बात परम चिन्तनीय है कि प्राचीन काल में आचार्य चरक द्वारा वर्णित हेतु आधुनिक काल में भी उतने ही युक्तियुक्त तथा तर्कसंगत एवं प्रत्यक्ष दृष्टिगोचर हैं। आचार्य चरक भारतीय चिकित्साप्रणाली के प्राण हैं, भारतीय चाहे सब कुछ भूल सकते हैं किन्तु चरक का नाम नहीं भूल सकते। ये हेतु अर्वाचीन विज्ञान की कसौटी पर तुलना करने पर

भी उतने ही व्यवहार सिद्ध प्रतीत होते हैं। साम्प्रत काल में समाज में इन्द्रियसुखों का भोग करने का प्रचालन अत्यधिक प्रमाण में बढ़ रहा है। ठीक उसी प्रकार के हेतु आचार्यों ने बहुत समय पूर्व में वर्णन किये हैं। अन्तिमतः सन्तर्पणजन्य प्रमेह के वर्णित हेतु आधुनिक काल तथा आधुनिक विज्ञान के परिप्रेक्ष्य में विचार करने पर उतने ही सटीक एवं व्यवहारसिद्ध हैं।

सन्दर्भ

1. च.सू. 1/55
2. च.चि. 6/15
3. सु.उ. 1/25
4. अ.ह.नि. 1/2
5. आस्या आसनम् तथा सुखं निश्चेष्टितमवस्था नम्। गंगाधर राय च.चि. 6/4
6. ...शयनं विधिवर्जितम्। अ.ह.नि. 10/3
7. च.सू. 21/50
8. च.वि. 5/15
9. च.वि. 5/16
10. अ.ह.सू. 11/26
11. बहु अबद्धं मेदो मांसं...इति दुष्यविशेषाः। च.नि. 4/7
12. During moderate or heavy exercise the usage of glucose does not require large amounts of insulin because exercising muscle fibers become more permeable to glucose even in the absence of insulin because of the contraction process itself. (Gyuton page no. 963 reprint 2008)
13. शा.सं.पू. 4/25
14. च.नि. 4/6
15. च.वि. 3/25
16. भ.गी. 17/9, 10
17. च.वि. 1/18



## AN APPLIED ANATOMY OF ATMA

**Abstract:** it is very essential to understand the Rachana (Anatomy) of Atma for the treatment of psycho-somatic disorders.

“Atma is omnipresent”, can enter to any physique; can perform any action and can take any shape is conscious elements beyond any sensory perception.

यास्क मुनि ने आत्मा शब्द की निरुक्ति करते हुए कहा है कि

“आत्मा तते वप्ति वायि इवस्याद् यावद् व्याप्तिभूत इति।”  
(निरुक्ति— 3/13/2)

आत्मा अत् धातु अथवा अप धातु से निष्पन्न है अप धातु का अर्थ है सतत चलना और अत धातु का अर्थ है व्याप्त होना और चूँकि आत्मा हमेशा चलती रहती है अर्थात् इसका सदाभाव सर्वदा बना रहता है और यह सर्वत्र व्याप्त है। यानि सभी वस्तुओं में उपस्थित है – अतः इसे आत्मा कहते हैं।

यहां आत्मा ही ज्ञाता, कर्ता और भोक्ता माना जाता है। शरीर मन और इन्द्रियां ये माध्यम हैं, जिनके द्वारा आत्मा ज्ञान प्राप्त करता है और स्व-2 क्रियाओं का सम्पादन करता है।

“ज्ञानऽधिकरणात्मा” (तर्क सं०)

Soul is the repository of knowledge.

The working senses are superior to matter, mind is higher than senses, intelligence is still higher than the mind and the soul is higher than the intelligence.

**Key words** - Jeevatma, Paramatma, Soul, Brahm, Brahma and Brahmand.

**Introduction** -

आत्मा का स्वरूप:-

आत्मा के स्वरूप के विषय में गीता में कहा गया है कि यह आत्मा किसी काल में भी न तो जन्मता है और न मरता

• \*Dr. Prem Prakash Gangwar

है तथा न यह उत्पन्न होकर फिर होने वाला है क्योंकि यह अजन्मा, नित्य, सनातन, पुरातन, शरीर के मारे जाने पर भी नहीं मारा जाता।

वासांसि जीर्णानि यथा विहाय नवानि गृहाति नरोऽपराणि तथा शरीराणि विहाय जीर्णान्यन्यानि संयाति नवानि देही।।  
(गी० अध्याय 2/22)

जैसे मनुष्य पुराने वस्त्र त्याग कर दूसरे नए वस्त्र ग्रहण करता है वैसे ही जीवात्मा पुराने शरीरों को त्यागकर दूसरे नए शरीरों को प्राप्त होता है।

नैनं छिन्दन्ति शस्त्राणि नैनं दहति पावकः।

न चैनं क्लेदयन्त्यापो न शोषयति मारुतः।

(गी० अध्याय – 2/23)

इस आत्मा को शस्त्र न काट सकते हैं। इसको आग न जला सकती है। इसको जल न गला सकता है और न वायु सुखा सकती है।

यह आत्मा अच्छेध है। अदध है। अक्लेछ है और निःसंदेह अपोष्य है। यह नित्य सर्वव्यापी अचल स्थिर रहने वाला और सनातन है।

**Atma Lakshanas:-**

Atma is cause of knowledge. The knowledge is procured when Atma comes in contact with Manas with Indriya and Indriya with objects.

“प्राणापानौ निमेषाधा जीवनं मनसो गतिः”

इन्द्रियान्तरसंचारः प्रेरणं धारणं च यत्

देशान्तरगतिः स्वप्ने पंचत्वग्रहणं तथा।

दृष्टस्य दक्षिणेनाक्षणा सव्येनावगमस्थत

इच्छा द्वेषः सुखं दुखं प्रयत्नश्चेतना धृतिः।

बुद्धि स्मृतिरहंकारो लिंगानि परमात्मनः।।

(च० शा० 1/70-72)

CONTRIBUTION OF ATMA TO GARBHA:-

• Prana & Apana Respiration (Inspiration & expiration)

• Nimeshadi Movements like lid movements,

■ \*Asst. Prof., Dept. of Rachana Sharir, Ch. Devi Lal College of Ayurveda & Hospital, Jagadhri, Haryana.



locomotion etc.

- *Jeevanam* Maintenance of life.
- *Mano gati* Travelling of mind from one place to another place.
- *Indriyantra* Transfer of impulses from one sense organs to others.
- *Preranam* Initiation of impulses
- *Dhranam* Retention of impulse
- *Swapne deshantara gamanam* Travelling of mind in dream state
- *Panchatwa* Dispersion in to five elements after death.

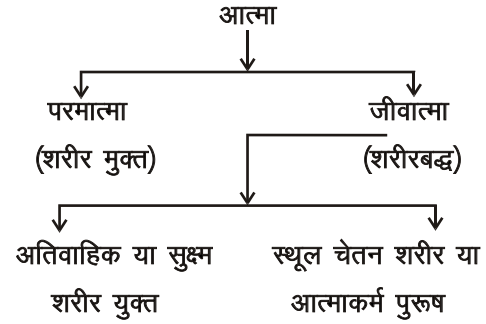
#### Special qualities contributed by Atma:-

<i>Ichachha</i> -	Desire or wishing
<i>Dewsha</i> -	Wishing ill of
<i>Sukham</i> -	Means pleasure is agreeable perception
<i>Dukham</i> -	Is disagreeable
<i>Pryatna</i> -	Action or effort
<i>Chetna</i> -	Is consciousness
<i>Dhariti</i> -	Refers to retentive power or self control
<i>Buddhi</i> -	Refers to intelligence
<i>Smriti</i> -	Refers to memory
<i>Ahankara</i> -	Refers to ego

#### Type of Atma

It is of two types-

- *Jeevatma* (Human Soul)
  - *Paramatma* (Divine soul)
- The divine soul is omniscient devoid of happiness and misery.
- The human soul is different in each human body and is infinite and eternal. It is intimate cause of happiness and unhappiness.



#### परमात्मा:-

निर्विकारः परस्त्वात्मा सत्त्वभूतगुणेन्द्रियैः।

चैतन्ये कारणं नित्यो द्रष्टा पश्यति हि क्रियाः।

(च०सू० 1/56)

परमात्मा निर्विकार (सुख-दुख से रहित) है। वही आत्मा सत्व (मन), भूत (पंचमहाभूत), गुण (भूतो का गुण शब्द स्पर्शादि या सत्व रज तम) और दस इन्द्रियों से युक्त होता है। तब चैतन्य (ज्ञान प्राप्त करने) में कारण होता है। वह आत्मा नित्य है। समस्त चराचर जगत का दर्शक है और क्रियाओं को देखता है।

“प्रभवो न ह्यनादित्वाद्धिघते परमात्मनः”

(च०शा० 1/52)

अर्थात् परमात्मा अनादि है क्योंकि इसकी किसी से उत्पत्ति नहीं होती है।

“अनादिः पुरुषो नित्यो विपरितस्तु हेतुजः”

(च०शा० 1/59)

अर्थात् इसका अस्तित्व सदैव रहता है। अनादि और कारण रहित होने के कारण वह नित्य है।

“अवयक्तमात्मा क्षेत्रज्ञः शाश्वतो विभुरव्ययः”

(च०शा० 1/61)

अर्थात् इसे अव्यक्त आत्मा क्षेत्रज्ञ शाश्वत विभु और अव्यय कहा गया है।

#### Methods and Materials:-

Anatomy of *Brahm, Brahma and Brahm*:-

Entire energy present in space in any form is *BRAHM*. Body of *Brahm* is space which is infinite. Space can not be produced or destroyed. Everything is produced in space situated in space



and will merge in space in the last. *BRAHMANDS* are created and destroyed according to desire of *BRAHM*. During creation of a *BRAHMAND* i.e. *SAURMANDAL* scattered energy present in space gets condensed in the forms of heat and light i.e. sun which is *BRAHMALOK* and *BRAHMA* is condensed energy present in the centre of sun on extreme condensation energy not only convert into atoms of various element but also rotates the sun around its own axis rapidly due to which peripheral fire of sun is thrown away into space in the form of spherical masses moving around the sun, fire produces air on quenching, air produces water on cooling and water produces earth on drying. On the earth *SHRASTI* appears in the form of plants and animals.

This process of creation of *BRAHMAND* is reversed during its destruction i.e. *Pralaya* when earth merges in water which merges in air which merges in fire of sun. In the last when condensed energy present in centre of sun scatters to spread in space all around sun is also destroyed i.e. *BRAHMA* merges in *BRAHM*.

सर्वाणि हि वा इमानि भूतान्याकाशादेव समुत्पद्यन्त ।  
आकाशमप्रत्यस्तं यन्त्याकाशे हयैवैम्यो ज्यायानाकाशः  
परायणम् ।

(छान्दोग्योपनिषद् 1/9/1)

सभी कुछ आकाश में ही उत्पन्न हुआ है, आकाश में ही स्थित है तथा आकाश में ही विलिन हो जाएगी ।

न वियदश्रुतेः ॥ (ब्रह्मसूत्र 2/3/1)

आकाश को उत्पन्न नहीं किया जा सकता है ।

First of all center of sun i.e. *BRAHMA* was produced by *Brahm*.

Truth i.e. *BRAHMA* is covered by light of sun.

*BRAHMA* is that which is present in centre of sun i.e. body of *BRAHMA* which regulates function of sun and sun is not aware of *Brahma*.

*Brahma* produces *Brahmand*. Everything in *Brahmand* is the form of *Brahm* whose shape is too minute to be visible or to be touched. It can be felt only.

*Brahm* produces *Brahma* first.

*Brahm* is that by which *Brahmands* are created, worn and destroyed.

Everything is produced by *Brahm*.

In the space inside heart *Brahm* is present in the form of light i.e. energy.

*Brahm* is truth, sense, and infinite and is present in space everywhere.

Being produced in the centre of sun the *Brahma* was seen first of all by *Brahm*.

Non production of anything else except *Brahm* is impossible. In other words except *Brahm* everything is produced.

*Brahm* is the cause of entire *Brahmand*.

Space is the body of *Brahm*. Space is the synonym of *Brahm*.

Characteristics of space resemble with *Brahm*.

*Brahm* (energy) desired to appear in many forms and *Brahm* (energy) started to become not due to condensation (*Tapa*) and due to condensation (*Tapa*) of energy (*Brahm*) every thing in the *Brahmand* was produced.

Fire of sun was produced from space.

Fire was produced from space, Air was produced from fire. Water was produced from air, earth was produced from water.

Order of *Pralaya* is reverse of the order of creation of *Brahmand* i.e. earth merges in water which merges in air which merges in fire of sun i.e. *Brahma*. When condensed energy present in the centre of sun scatters to spread in space the sun is also merged in space i.e. *Brahma* merges in *Brahm*.

Entire *Brahmand* is merged by *Brahm*.



*Brahm* is the cause of entire *Brahmand*.

Entire energy present in space in any form is *Brahm*.

*Brahma* is condensed energy present in centre of sun.

*Saurmendal* is *Brahmand*.

On extreme condensation energy not only converts into atoms but also rotates sun around its own axis. Due to rotation of sun around its own axis the planets produced from it not only rotate around their own axis in the same direction but also start moving around the sun in the same direction.

In the atoms produced due to extreme condensation of energy the electrons also start moving around the nucleus of atom in the same direction in which sun and planets produced from sun are moving.

**Jeevatma:-**

शरीर से बद्ध आत्मा को जीवात्मा कहते हैं। शरीर में रहने के कारण ही इसे पुरुष कहते हैं।

“पुरि (शरीरे) वसति इति पुरुषः” (अमरकोष)

जीवात्मा माया या प्रकृति से बंधा हुआ आत्मा है जबकि परमात्मा माया से अलिप्त या मुक्त एवं सर्वभावरहित होता है। जीवात्मा के शरीर में बंधे रहने का कारण अविद्या है। अविद्या ही बंधन का हेतु है। अविद्या से ही संसार है और यह अविद्या ही समस्त दुखों की जड़ है। अविद्या के परिणाम स्वरूप ही सूक्ष्म शरीर तथा स्थूल शरीर की स्थिति है। इसी कारण से अविद्या को वेदान्त में ‘कारण-शरीर’ (Casual Body) कहा गया है।

“शुक्र शोणित गर्भाशयस्थ आत्मप्रकृतिविकारसम्मूर्च्छितं गर्भं इत्युच्यते” (सु0शा0 3/1)

The definition of *Garbha* (fetus) in *Ayurveda* stands for conglomerated entity of male & female pro-nuclei (*Shukra* & *Shonita* soul (*Atma*), *Prakriti* and *Vikriti*).

The concept of including the conscious element 'the *Atman*' makes Ayurvedic embryology

of salient feature more intricate more complicated.

The Head produced during coitus activates *Vayu* and by combine act of *Vata* and *Tejas Shukra* is ejaculated and gets mixed with *Artava* in uterus. Into the conglomerated mass formed by *Agni* (*Artava*) and *Soma* (*Shukra*) the soul or *Jeeva* known by following synonyms enters to transform the biological mass into *Garbha*.

“क्षेत्रज्ञो वेदियता स्पृष्टा धाता द्रष्टा श्रोता रसयिता

पुरुषः स्रष्टा गन्ता साक्षी धाता वक्ता य ....” (सु0शा0 3/4)

<i>Kshetrajna</i>	-	Having the knowledge of Body
<i>urusha</i>	-	Inhabitant of body
<i>Vedyita</i>	-	Knower
<i>Sprashta</i>	-	Perceiver of tactile sensations
<i>Ghrata</i>	-	Perceiver of smell
<i>Drashta</i>	-	Perceiver of optic sensations seer
<i>Shrota</i>	-	Perceiver of Auditory sensations
<i>Rasayita</i>	-	Discerning of taste
<i>Srashta</i>	-	A creator and epithet of <i>Brahma</i>
<i>Ganta</i>	-	Responsible for all movements
<i>Shakshi</i>	-	Exponent witness
<i>Dhata</i>	-	Supporter of body
<i>Vakta</i>	-	Speaker
<i>Achintya</i>	-	Inconceivable
<i>Avyaya</i>	-	Eternal

*Atma* is one of the factors in the formation of *Garbha*. The *Garbhatma* or the *Antaratma* the soul which is present in fetus is also called as *Jeeva*. It is called with different synonyms.

सूक्ष्म शरीर:-

जब जीवात्मा इस स्थूल पंचभौतिक शरीर को छोड़ देता है। तब इस स्थूल शरीर को छोड़ देता है तब इस स्थूल शरीर को मृत कहते हैं। जो यही पृथ्वी पर नष्ट हो जाता है तथा उसके पंचतत्व स्व-स्व तत्वों में विलीन हो जाते हैं। लेकिन आत्मा जीवात्मा अब भी अविद्या के कारण एक-दूसरे शरीर को धारण किए रहता है, जिसे हम सूक्ष्म शरीर या लिंग शरीर कहते हैं। इस सूक्ष्म शरीर को दिव्य



दृष्टि के बिना नहीं देखा जा सकता। मरणोत्तर कर्मानुसार सूक्ष्मशरीर से जीवात्मा दूसरे शरीर में जाकर जन्म ग्रहण करता है। सूक्ष्म शरीर सभी योनियों में प्रवेश कर सकता है। यह लय को प्राप्त हो जाता है।

“भूतैश्रतुर्भिः सहितः सुसूक्ष्मैर्मनोजवो देहमुपैति देहात् कर्मात्मक्त्वान्न तु तस्य दृश्यं दिव्यं बिना दर्शनमस्ति रूपम्।।” (च०शा० २/३१)

The soul associated with mind and subtle four *Bhutas* (other than *Akasha*) transmigrates from old body to future body of fetus (conjugated mass of ovum and spermatozoon) guided by the associated past actions. The soul can not be visible and perceived through divine vision. He is omnipresent. He can enter into any physique, perform any action.

#### Results :-

##### Anatomy of *Sukshma Sharira*:-

*Sukshma Sharira* consists of microform of five components.

- 1 Earth
- 2 Water
- 3 Air
- 4 Fire
- 5 Space

*Jivatma* and *Brahm* leave the heart and enter the microform of fire component and space component respectively. Senses leave the senses organs and enter microform of earth component *Prana* leaves the lungs and enters microform of air component *MANA* leaves the brain and enters microform of air component of *Sukshma Sharir* after death of *Parithiva Sharira*. Size of *Sukshma Sharira* equals with the size of thumb. In *Sukshma Sharira* microform of earth component merges in microform of water component which merges in microform of air component to merge finally in microform of fire component. In this way in *Sukshma Sharira* senses merge in *Mana*, which

merge in *Prana* which merge in *Jivatma*. In *Sukshma Sharira Jivatma* can not merge in *Brahm* because microform of fire component does not merge in microform of space component, with *Jivatma* and *Brahm*, the *Sukshma Sharira* lives in the sky and when it enters cardiogenic area developing embryo pulsations start in the arterial heart.

Many people say that existence of *Jivatma* is not possible without a living body. *JIVATMA* is a separate thing from the body because existence of body is possible even in the absence of *JIVATMA* from the living body.

At the time of death speech merges in *MANA*. It is mentioned in *Vedas* and it is also proved by seeing a dying person.

It should be learnt that all the senses merge in *MANA*.

After that with all the senses *MANA* merges in *PRANA*.

*PRANA* merges in *JIVATMA* with *MANA* and all the senses. It proved by description of *Jivatma* when it leaves a living body.

After death of *PARTHIVA SHARIRA JIVATMA* leaves the body through eyes or through anus or through any other aperture in body when *JIVATMA* leaves the body it is accompanied by *PRANA MANA* and all the senses. With senses *MANA* and *PRANA* the *JIVATMA* is situated in microform form of earth, water, air, fire and space.

*Sukshma Sharira* is described as *Ratha* consisting of microform of earth, water, air and space components.

*JIVATMA* remains related to *Sukshma Sharira* till it is released from the birth death cycle. Earth, water air fire and space component of *Sukshma Sharira* are in their micro form. It is proved by proof given in *Vedas*.



Sukshma Sharira can not be destroyed by burning like the Parthiva Sharira.

Heat of PARTHIVA SHARIRA is lost when Sukshma Sharira leaves it with JIVATMA.

JIVATMA lives in Sukshma Sharira size of Sukshma Sharira equals with the size of a thumb. It shines like sun. It is accompanied by thought, proud, wisdom and their own characters. JIVATMA is minute like the end of a needle. It is separate from BRAHM and it has been seen by wise persons.

In Sukshma Sharira microform of earth component merges in microform of water component which merges in microform of air component which merges in microform of fire component. Senses leave the sense organs and enter microform of earth component. MANA leaves brain and enters microform of water component PRANA leaves lungs and enter microform of air component JIVATMA leaves heart and enter microform of fire component BRAHM leaves hearth and enter microform of space component of Sukshma Sharira after death of PARTHIVA SHARIRA.

In Sukshma Sharira senses merges in MANA which merges in PRANA which merges in JIVATMA

In Sukshma Sharira Jivatma can not merge in BRAHM because microform of fire component does not merge in microform of space component.

**स्थूल शरीर:—**

आपके समक्ष दिखलाई देने वाला यह शरीर ही स्थूल शरीर (ग़ोस बोडी) है। यह पंचमहाभूतो से निर्मित शुभ-अशुभ कर्म जनित सुख-दुख आदि कर्म फलों के भोगने का साधन और विनाशी हैं। श्रीकृष्ण ने गीता में स्पष्ट कहा है।

अन्तवन्त इमे देहा नित्यस्योक्ताः शारीरिणः।”

(गीता अ – 2/16)

अर्थात् नाश रहित अप्रमेय नित्यस्वरूप जीवात्मा के

यह सब शरीर (स्थूल शरीर) नाशवान कहे गए हैं।

### Conclusion

The cycle in which Sukshma Sharira enters the new Parthiva Sharira situated in uterus of mother to take birth in this world and leaves the old PARTHIVA SHARIRA i.e death to enter again in a new PARTHIVA SHARIRA.

Again and again JIVATMA takes birth by entering Parthiva Sharira. Again and again Sukshma Sharira leaves Parthiva Sharira after the death. Again and again JIVATMA lives in uterus of mother by entering Parthiva Sharira.

### References

1. Ashtang Hridaya: By Kaviraj Atridev Gupta, Vidyotini Hindi Commentary, Chaukhamba Sanskrit Sansthan Varanasi, 13<sup>th</sup> Ed<sup>n</sup>, 2000.
2. Charak Samhita: Vidyotini Hindi Commentary by Pt. Kashi Nath Shastri and G.N. Chaturvedi, Chaukhamba Bharti Academy, Varanasi, part-II 2<sup>nd</sup> Ed<sup>n</sup>, 1996.
3. Rigved: Translated by Rishi Kumar, Pd. Ram Chandra Sharma, Sanatan Dharma Yantralaya, Moradabad, Samvat 1987.
4. Srimad Bhagwat Geeta: Commentary Jaydayal Goyandika, H.P. Poddar, Geeta Press, Gorakhpur, 6<sup>nd</sup> Ed<sup>n</sup>, Samvat, 2015.
5. Athrvaved: Commentary Jaydayal Goyandika, H.P. Poddar, Geeta Press, Gorakhpur, 6<sup>nd</sup> Ed<sup>n</sup>, Samvat, 2015.
6. Sushrut Samhita: Hindi commentary by Dr. Ambika Dutta Shastri, Chaukhamba Sanskrit Sansthan Varanasi, Part I & II, 10<sup>th</sup> Ed<sup>n</sup>, 1996.
7. Amarakoa - Amarsinha, IInd Edition, 1976.
8. Spiritual Anatomy by Dr. Keshva Kumar



# STANDARDIZATION AND QUALITY CONTROL OF AYURVEDIC FORMULATIONS:

• Dr. Gopal Krishan Sharma

**ABSTRACT:** Many classical references can be found in the Ayurvedic text books regarding quality control standardization of the ayurvedic drugs in Bhav Prakash and Sharangdhar Samhita qualitatively the best drug are described. Similarly the collection of the raw material (drugs) should be based on the specific guidelines mentioned in the Ayurvedic texts. Although all these precondition were looked as rational but they have scientific bases which is well supported by researchers in Botany as well as Pharmacology.

**KEY WORDS:** Standardization, quality control, and ayurvedic drugs.

**INTRODUCTION:** Detailed standards for the treatment schedules to drug in the pharmacy such as mode of combining to similar drugs (samyuktam), method of preparations (vihitam), hydration (bhavana sanskara), purification (shodhan), grinding to extent of micronising (mardan), and containers such as Musa (crucible), Sarava Samputa (round, shallow vessels), Sthali (Iron pan), oxidation (agni sanskar/marana) are anticipating manifestation of final product (upaskritam). All have elaborated death with ancient scientists have also given certain general principles about the self life of crude drugs obtained from forest. Its powder (churna) soon loses its potency (virya heena) in two months. The tablets/pills (vati) and syrups becomes ineffective (gunheen) after one year. Preparation like (paka), medicated Ghee, oil starts losing their potency after sixteen months. Other hand fermented beverages (asava, arista, sura), and calcined metals ash (bhasma) and mercurial preparations (rasa and uprasa) become more effective after prolonged

storage too.

In the ancient times, question of standardization of medicine (Ay) was of no use because of all the vaidhya & hakims prepare their own medicine themselves to give their patients. They do not compromise in crude drugs as well as compound preparations. But as the time passed, Pharmaceutical Industry come into existence, due to increased population & urbanization of people.

The Drugs & cosmetics Act 1940, rule 1945 were formulated by Govt. of India to have control on the manufacturing of drugs of Indian Systems of medicine. According to each manufacturing of should ensure the identity and purity of cruds as well as finished compounds drugs. But due to lack of scientific standards of single drugs, the adulteration is done by the manufacturer knowingly or unknowingly by using other species, which are cheaper have less or something no medicinal value.

It is important that drugs should be uniform in quality, both as regards to the origin and cleanliness, and also with respect to the content of their active constituents. The quality of the single drug as well as compound formulation is assessed by fix standards for their combination or for a particular drug. These standards are based on the study of genuine drugs by which the adulterants' and substituent can be detected from genuine drugs.

Above mentioned biological method of standardization mentioned in ancient texts by Acharyas can be supplemented and complimented by enhancing the appropriate modern techniques / different physiochemical parameters. Thus a

■ Prof. & HOD Rasha Shashtra & B.K, CDL College of Ayurveda Jagadari, Harayana





quality control would be maintained to check adulteration in prepared Ayurvedic medicines. So that their effectiveness would not be affected & they shows their effectiveness among the current systems of medicine. In laying down the standards of crude of plant origin, three set of criteria of studies are taken into account. Viz:

- a) Structure studies of the Raw material.
- b) Chemical study of the drug leading to the development of Assay (Gravimetric or volumetric) for pharmacological activities.
- c) Physical constants.

To evaluate the standard of different prepared formulations, following parameters could be used.

#### **W.H.O Guidelines for quality standardization of Herbs and its formulation. (EVALUATION OF DRUGS)**

##### **I. For Raw material (crude drugs)**

##### **A): Structural study (Identification)**

1. Name
2. Synonyms
3. Source
  - a) Geographical source(Region, Status).
  - b) Anatomical
  - c) Botanical Identificatio: Macroscopic / Microscopic (Histological xylem phelom etc.).
4. Variety (Species)
5. Classical reference ( ras ,gun,virya ,vipak, prabhav)
6. Collection of the part of plant (Collected region)
7. Adultration
  - a) Foreign matter : Soil, insects, animal excreta.
  - b) Other variety/ species
8. Physical constants : Orgonoleptic characters  
Appearance, Colour, Smell, Touch & Taste
9. Chemical Parameters : Test for alkaloids , resins  
Chromatography , TLC, GLC, HPLC, HPTLC, UV etc.

##### **II. Test for the prepared herbal / Herbominerel / Organometallic combinations:**

**A): Physical parameters:** Includes organoleptic chararters

Clarity (tissue of diagnostic impurities present in drug powder), Colour, Touch (Fineness of particles (by different number of sieves 1 to 13), Odour (smell) (pungent, bad, pleasant of different volatile oils etc), Solubility in various solvents (Alcohol, Ether, Acid, Sprit and Water etc.)

**B): Physiochemical Parameters :**

Weight / ml, % loss on drying at 110°C, Moisture content determination(dried at 105-110°C), Specific gravity, Viscosity (in poise), Ash value(at 450°C 500°C in %): Organic compounds decompose two Co<sub>2</sub> and water and organic and known volatile matters remains as residue, pH value (hydrogen Ion concentration), Acid value, Refractive Index(μ), Saponification value, Ester value, Iodine value, B.P (Boiling Point) / F.P(Freezing Point), Friability (Hardness), Disintegration time (This has great role in absorption of drug in intestine), Acid in soluble Ash (This parameter is helpful in characterizing specific mineral elements which are in soluble in inorganic acids), Qualitative test for alkaloids, starch, sugar and volatile oils, Solubility (Acid soluble extractive /Ash, Alcohol soluble extractive, Water soluble extractive) Microbial contamination (Test for specific Pathogen(E.coli, salmonales spcies etc)), Test for Pesticides(organo chlorine / organo phosphorus, Presence of any biological unexpected elements or presence of any toxic element, Presence of any synthetic steroid, G.L.C ( Gas Liquid Chromatography for alkaloids), T.L.C (Thin Layer Chromatography for alkaloids, HPLC(High Performance Layer Chromatography), HPTLC( High Performance Liquid Chromatography)

**(C): Elemental Analysis (By atomic abortion spectrophotometer):**

Test for heavy matels in different formulations assay for Sulphur, Iron, Lead, Cadium, Mercury, Arsenic etc. As per the invariants use.



a) About spectrophotometric method. We can specify the photography of phyto constituents to be present in crude drugs. Eg: Glycosides and alkaloids in spectroscopic analysis the capacity of certain molecules of a drug to absorb vibration at specific wavelength is the basis for the drug evaluation. Emission and absorption are the two types of spectra. They are caused by transfer of electrons from their lower orbit to high orbit or vice versa. In atomic absorption spectrometry radiation from an external light source emitting the spectral lines from an electronic transmission is passed through the flame. The flame gases are treated as medium containing free excited atoms capable for absorbing radiation from an external source. Absorption is measured by difference in transmitted signals in the presence and absence of the test elements. All type of spectrophotometric methods pressure regulators, flow meters for the fuel and oxidant gases, nebulizer and burner assembly, optical systems, photosensitive detectors, amplifier and read out system with attendant power supply are required. In addition to this a suitable light source is needed for each element being analyzed, frequently a light interrupter is also placed between the light source and the flame transmission from ground electronic to the first excited stage take place. Atomic absorption spectrometry resembles emission flame photometry in which sampling is aspirated into a flame and atomized. The major difference is that, in flame photometry **the amount of light is emitted** is measured, whereas in A.A.S a light being is directed through a flame into monochromator and to a detector that measures **the amount of light absorbed** by the atomized element in the flame. In many elements A.A.S exhibits superior sensitivity because each metal has its own characteristic absorption wavelength. A source lamp is composed of that element which is used and makes the matter relatively free from

spectral or radiation interferences. The amount of energy of characteristic wavelength in flame is proportional to the concentration of the element in the sample. Many metals can be determined by direct aspiration of the sample into an air acetylene flame which has highest temperature 2120°C to 2400°C with burning velocity 160 cm/sec. Most common type of burners is premix which introduces the spray into condensing chamber for removal of the large droplets. The lamps are either hollow cathode lamp or electrodeless discharge lamp.

**RESULT :** To evaluate the standards for different prepared formulations can be categorized as follows by using the above mentioned norms. (According to C.C.R.A.S book **PHARMACOPOEIAL** standards for ayurvedic formulations and self experience for different ayurvedic preparations.)

**Churnas (Fine powders) / vati / Pills / Laha:**

- 1) Name of the medicine- Books name, 2) Therapeutic indication- Rogadhikar, 3) Identification- Bhoticswaroop

**Organoleptic characters (Qualitative or Physical)**

- 4) Colour White, black, red, yellow, brown etc.,
- 5) Taste Bitter, sweet, salty, katu, kshaya etc.,
- 6) Smell (odour) A characteristic smell, 7) Touch
- Fineness of the particles (sieves number 1 to 13 of different diameters), 8) Hardness By hardness tester

**Physiochemical parameters**

- 9) Weight average weight of tablet is 500 mg,
- 10) Disintegration time, 11) Loss on drying on 110°C (not more than 9% w/w), 12) Ash value (not more than 10% w/w), 13) Acid soluble Ash (0.5% to 5% w/w), 14) Water soluble extractive (25% to 70% w/w), 15) Alcohol soluble extractive (5% to 55% w/w), 16) Either soluble extractive (4.02% w/w), 17) Resin contents (for vati) 3% to 12% w/w, 18) Iodine value, 19) pH value, 20) Assay (for vati laha) metals/minerals, 21) T.L.C., 22)



H.P.L.C, 23) Effective doze (1gm to 6gm),

#### **Satwa and Ghan satwa**

- 1) Name of the medicine- Books name,
- 2) Therapeutic indication- Rogadhikar, 3) Identification- Bhoticswaroop

#### **Organoleptic character**

- 4) Colour satwa, white powder / Ghana, Black and solid, 5) Taste satwa is Bitter in taste / Ghan is pungent in taste, 6) Smell A characteristic smell, 7) Touh satwa smooth / Ghansolid

#### **Physiochemical parameters**

- 8) Ash content not more than 5% w/w, 9) Acid soluble ash content not more than 2% w/w, 10) Water solubility satwa more than 35 w/w / Ghansatwa 60 to 80% w/w, 11) Alcohol solubility, 12) pH value, 13) T . L . C , 14) Effective doze 1gm

#### **Avalehas (confections) / paka**

- 1) Name of the medicine- Books name, 2) Therapeutic indication- Rogadhikar, 3) Identification- Bhoticswaroop,

#### **Organoleptic characters**

- 4) Colour, 5) Taste sweet / astringent, 6) Smell -characteristic, 7) Form / Consistency semisolid aromatic confection

#### **Physiochemical parameters**

- 8) Loss drying at 110°C: 5 to 15% w/w, 9) Ash content, 10) Acid in soluble ash content, 11) Fat contents 1 to 15% Nt w/w, 12) Total sugar 50 to 70% Nt w/w, 13) pH value, 14) T.L.C,

#### **Ksaras (Alkaline preparations)**

- 1) Name of the medicine- Books name, 2) Therapeutic indication- Rogadhikar, 3) Identification- Bhoticswaroop,

#### **Organoleptic characters**

- 4) Colour white, 5) Taste saline, 6) Smell characteristic, 7) Form smoothness in water

#### **Physiochemical parameters**

- 8) pH value 7 to 14%, 9) Assay for Potassium 10

- to 42 % w/w, 10) Assay for sodium 10 to 32% w/w, 11) Assay for calcium, 12) Effective doze 250 mg to 1gm

#### **Asavas and Aristas (Preparation with self generated alcohol)**

- 1) Name of the medicine - Books name, 2) Therapeutic indication - Rogadhikar, 3) Identification- Bhoticswaroop,

#### **Organoleptic characters**

- 4) Colour Black and Brown, 5) Smell alcohol, 6) Taste sweet and sour

#### **Physiochemical parameters**

- 7) Total solid 1 to 15% w/v, 8) Total Sugars reducing :20 to 30% w/v  
No reducing : not more than 1% w/v  
(But not available in Ashiphanasava)

- 9) Specific gravity 1005 to 1022, 10) pH value, 11) Alcohol contents 3.5 to 8.7% w/v, 12) Ash content, 13) T . L . C , 14) Refractive index, 15) Phytochemical study, 16) Effective doze 15 to 30 ml except Ashiphanasava and Karpurasav

#### **Arkas (Distillates)**

- 1) Name of the medicine - Books name, 2) Therapeutic indication - Rogadhikar, 3) Identification- Bhoticswaroop,

#### **Organoleptic characters**

- 4) Colour transparent, 5) Smell smell of volatile oils present, 6) Taste Bitter

#### **Physiochemical parameters**

- 7) pH value, 8) Specific gravity, 9) G L C ( Gas Liquid Chromotography) study, 10) Analysis of volatile principle, 11) Effective doze

#### **Ghrtas and tailas (Medicated ghee and oil)**

- 1) Name of the medicine - Books name, 2) Therapeutic indication - Rogadhikar, 3) Identification- Bhoticswaroop,

#### **Organoleptic characters**

- 4) Colour yellow and green, 5) Smell pleasant, 6) Taste fatty and bitter



#### **Physiochemical parameters**

- 7) Loss on drying at 110°C not more than 1% w/w,  
8) Reflective index at 40°C, 9) Acid value,  
10) Saponification value 220 to 232, 11) Iodine value 30 to 40, 12) T . L . C , 1 3 )  
H.P.L.C, 14) Effective doze 10 to 25 gm

#### **Lepa (Topical applicant)**

- 1) Name of the medicine - Books name, 2)  
Therapeutic indication - Rogadhikar, 3)  
Identification- Bhotic swaroop

#### **Organoleptic characters**

- 4) Colour, 5) Form consistency, 6) Smell  
characteristic

#### **Physiochemical parameters**

- 7) Loss on drying at 110°C, 8) Ash content,  
9) Acid soluble ash content, 10) Solubility in  
water, 11) Solubility in alcohol 12) T.L.C

#### **Anjana (collyrium)**

- a) Organoleptic characters, b) Ash content,  
c) Acid insolub ash content, d) Identification  
of main chemical constituents

#### **Bhasmas (Incinerated products)**

- 1) Name of the medicine - Books name, 2)  
Therapeutic indication - Rogadhikar, 3)  
Identification- Bhotic swaroop,

#### **Organoleptic characters**

- 4) Touch fineness of particles (suksham), 5)  
Odour odourless, 6) Taste tasteless or  
saline, 7) Ayurvedic testing method varitar, awami,  
nishchindra, amal pariksha, apunarbhawa, nirutha  
etc.

#### **Physiochemical parameters**

- 8) Loss on drying not more than 0.5 //5 w/w,  
9) Loss in Ignition not more than 1% w/w,  
10) Acid in soluble ash not more than 2% w/w,  
11) Assay for metals / minerals (percentage w/w),  
12) Quantity test, 13) Qualitative test,  
14) Ph, 15) T.L.C, 16) Effective doze  
10 mg to 125 mg

#### **Mercurial preparations (Kharalia / Kupipakvarasayana)**

- 1) Name of the medicine - Books name, 2)  
Therapeutic indication - Rogadhikar, 3)  
Identification- Bhotic swaroop,

#### **Organoleptic characters**

- 4) Touch fineness of particles (suksham), 5)  
Odour odourless, 6) Taste Astringent, Bitter,  
7) Ayurvedic testing method Galasth / talasth for  
Kupipakvarasayana and its toxicity of Hg, sulphur,  
As

#### **Physiochemical parameters**

- 8) Loss on drying at 110°C, 9) pH, 10) T.L.C,  
11) Ash content, 12) Acid insoluble Ash  
content

#### **Analytical study (Quantitative estimation)**

- 13) Assay for Gold percentage w/w,  
Iron percentage w/w, Mercury percentage w/w,  
Borax percentage w/w, Arseni percentage  
w/w, Sulphur percentage w/w, Silver percentage  
w/w, Copper percentage w/w, Tin percentage  
w/w, Zinc percentage w/w, Lead percentage w/w,  
Calcium percentage w/w, Silica percentage w/w,  
Potassium percentage w/w and Phosphate  
percentage w/w

- 14) Effective doze 125 mg to 250 mg

#### **Parpati ( A thin flakes with mercury, sulphur and other drugs)**

- 1) Name of the medicine - Books name, 2)  
Therapeutic indication - Rogadhikar, 3)  
Identification- Bhotic swaroop, 4) Ayurvedic test  
Mradu, Madhya, Khar pak / Toxicity test / Alkali test  
/ Acid test / Nishchindra test

#### **Organoleptic characters**

- 5) Colour Black, 6) Odour, 7) Taste  
Bitter, 8) Identification of main constituents

#### **Physiochemical parameters**

- 9) Loss on drying at 110°C, 10) T . L . C ,  
11) pH value

#### **Analytical study (Quantitative estimation)**

- 12) Assay for : Mercury 23 to 27 percentage  
w/w, Sulphur 23 to 27 percentage w/w, Other  
metallic constituents of the formulation



13) Effective doze

#### **Dravaka Kalpana**

1) Name of the medicine - Books name, 2) Therapeutic indication - Rogadhikar, 3) Identification- Bhotic swaroop

#### **Organoleptic characters**

4) Colour A clear light yellow, 5) Smell Pungent, 6) Taste Acrid

#### **Physiochemical parameters**

7) pH value, 8) Specific gravity at 25°C - 0.994

#### **Conclusion**

In this way we can establish the different parameters for different Ayurvedic crude drugs as well as Herbominerals / Herbometal Ayurvedic compound formulations. These standards are based on the study of genuine drugs by which the adulterants' and substituent can be detected from genuine drugs. So that we can maintain the efficacy of Ayurvedic drugs in the present scenario.

Thus a quality control would be maintained to check adulteration in prepared Ayurvedic medicines. So that their effectiveness would not be affected & they shows their effectiveness among the current systems of medicine.

#### **References**

- Sharandhar Samhita
- Charak Samhita
- Drugs and cosmetics act
- Qualitative analysis of drugs By D.C Garatt, Japan
- Indian pharmacopoeia
- Ayurvedic formulary of India CCRIM & H New Delhi
- Evaluation of testing norms and Pharmacopoeial Standards of Ayurvedic preparations By Dr. N.N Panday, Rishikul Ayurvedic Mahavidyalaya, Haridwar, UK
- And some many other journals

(पृष्ठ 6 का शेष)

#### **Conclusion**

Above treatment protocol like *Abhyanaga-Swedana*-Internal medication like *Guggulu* formulations with *Anupana* of *Kwatha* can be the best treatment protocol in reducing pain, swelling and stiffness in cases of Arthritis. The two packages for are suppose to be applicable in the two major category of the SGV (*Upastanbhita* & *Nirupastanbhita*). Although a large scale study can be planned to derive more justifiable conclusion.

#### **Acknowledgement**

The Authors are thankful to all the consultants of S.G. Patel Ayurveda Hospital and Maternity home to document the data of patients. The authors are also thankful to the Management of Charutar Vidya Mandal who provided divine atmosphere and infrastructure to conduct research in Ayurveda.

#### **References**

- 1 Morbidity and Mortality Weekly report. 2010;59(39);1261-1265. [Data Source: 20072009 NHIS] Available from [http://www.cdc.gov/arthritis/data\\_statistics/arthritis\\_related\\_stats.htm](http://www.cdc.gov/arthritis/data_statistics/arthritis_related_stats.htm) last accessed on Dec.27,2012
- 2 Morbidity and Mortality Weekly report. 2005; 54 (5) : 119123. [Data Source: 2002 NHIS] Available from [http://www.cdc.gov/arthritis/data\\_statistics/arthritis\\_related\\_stats.htm](http://www.cdc.gov/arthritis/data_statistics/arthritis_related_stats.htm) last accessed on Dec.27,2012
- 3 Sharangadhara Samhita Madhyama Khanda
- 4 Rasatantra Sara Siddha prayoga Samgraha



---

**Dr. Ganga Sahai Pandey Memorial**  
**All India UG Ayurveda Essay Competition-2012**  
**Silver Medal (IInd Prize) Winner Essay**  
**"INTEGRATION OF MODERN AND**  
**AYURVEDIC MEDICAL SCIENCE-A BOON OR CURSE?"**

• Nitin V.

This seems to be a highly debatable & controversial, yet a very interesting topic to discuss upon.

Integrative medicine is ideally the combination of proven practices and methods of alternative medicine with conventional medicine.

Integration should be constructive in three distinct parameters. One is integration of modern with Ayurvedic science & Ayurvedic with modern medical science equally. The second is integration in building up better concepts & treatments. The third is integration in education & in practice. But all these with limitations of dependency & usage and to retain identity of each system with service to mankind as the primary priority.

Ayurveda, the practical & philosophical science of life is the mother of all medical sciences having a great heritage since centuries.

Ayurveda is the science which decides what is compatible & what is not compatible to live a hasslefree healthy life. The updated definition of health as per W.H.O. says, "Health is a state of physical, mental, spiritual & social wellbeing" and not merely free from diseases. Where as Ayurveda

has already made and proved the above definition centuries ago.

Ayurveda is a holistic medical science dealing with both prevention & cure of diseases, thereby achieving a better status of health.

Switching over to the concept of medicine, unlike any other stream of medicine, Ayurveda gives much importance to food habits than only medicine.

Irrespective of the type of medicine, it is cautioned that even a poison can be used as medicine if processed & utilized in a right manner and vice versa, even a medicine can act as poison if not used righteously.

The question of safety & side effect of any drug depends upon multiple factors like the source of the drug, nature & status of the disease, pharmacodynamics & pharmacokinetics of the drug and ultimately the decision of the physician regarding the selection of particular drug to particular patient along with its safe dose & mode of administration.

As most commonly spoken by the general public that Ayurvedic medicines are 100% free of

---

■ Internee, SDM College of Ayurveda & Hospital, Lakshminarayan Nagar, Kuthpady, UDUPI-574118 (Karnataka)



side effect, actually it is not so, because any mistake in the drug selection and drug interactions when used in wrong combinations do produce certain side effects, but the percentage is very minimal (almost negligibly less) because they are the direct utilization from herbal & mineral sources after a thorough process of inspection, purification and experimentation & most importantly they do not undergo chemical treatment unlike modern medicines which is why these are almost very safe and do not trigger up their adverse reactions with any other physiological processes of the body unlike modern medicine in which there are a number of combinations of drugs to counteract on the side effects of each drug!

To discuss about the efficacy and speed of the results they produce, there is a wrong notion among the doctors & public that Ayurvedic medicines are not quick acting. But the fact is Ayurveda being a holistic science, its nature of encountering a disease is right from its root cause and achieving a complete cure and hence naturally it takes time to give such a wonderful result. But a few patients do not have patience to enjoy such a qualitative result. On the other hand, Ayurveda too has an established concept of emergency management like काकपादचिकित्सा, मरीचतैलनस्य, कपाटशयन etc...

The advent of modern medical science is not a direct cause for the decline in Ayurvedic diagnostics

& treatment but there is a negative role of both patients and doctors who want instant relief & gain popularity & money respectively. The most important point to be understood by the physicians & patients is that not in all cases & at all stages we need the intervention of allopathic medicines. Even in ancient era, right from simple management by pathya upto surgeries were successfully managed by Acharyas of Ayurveda even before the birth of modern diagnostic tools & treatment modalities.

But as years progressed, even technologies advanced, standard of education changed, lifestyles are modified & sophisticated, but the real quality of life has found a drastic decline with advancements in new diseases too. The major setback in practicing and accepting Ayurvedic principles is because of lack of confidence and lack of professionalism. Proper study and correct interpretation will not pave way for such setbacks. The availability of drugs is a major issue to be thought of the so called urbanization or advancements has resulted in a drastic decline in the source of herbo mineral raw drugs. All these are the reasons for a downfall in professionalism which negatively influences the Ayurvedic physicians to depend on modern medicines.

Treating a disease is different from treating a patient as a whole. Treatment is half done if the diagnosis is accurate. And the other half is concerned with counseling and the actual



medicine/surgery. In this regard the presently available modern diagnostic aids are of great help in reaching accuracy. From treatment point of view, Ayurveda emphasizes on treating the patient as a whole rather than just targeting the disease. But the level of dependency should be only to confirm our classical diagnosis. In this regard, a thorough theoretical knowledge is necessary for any practitioner to apply it clinically and to achieve this target, not only Ayurvedic students should have a collaborated syllabus of Ayurveda & Allopathy, but even modern medicine students should have an inclusion of Ayurvedic syllabus where in they can learn the basic principles of Ayurveda - its approach, view, advantages & disadvantages of medicines & treatment procedures etc... but the ultimate goal of any doctor should be the wellbeing of the patient by giving first priority to the patient than ego of themselves & their streams.

Undoubtedly modern medical science is a boon to the current style of clinical practice and present day lifestyle in many ways during many of the critical situations like road traffic accidents, myocardial infarctions, epileptic attacks etc...inclusive of ultra modern medical techniques like artificial ventilation, cardiac defibrillator etc... and surgical techniques for complicated and sensitive surgical cases with the use of laser techniques, robotic techniques, nano technologies etc... and the question arises that how far the

quality of the patient's life is enhanced by increasing the life span? And how many patients are really affordable to such improved levels of diagnosis and treatments? But not to forget that Ayurveda too has a role to play in modern diagnostic aids such as identifying margavarana & dhatukshaya in X-Ray and MRI and a list of such efficient treatment modalities in critical conditions too as mentioned earlier regarding काकपादचिकित्सा, मरीचतैलनस्य, कपाटशयन and similarly the systematic emergency treatments of panchakarma, agadatantra & shalyatantra as mentioned in texts! In this regard, Ayurveda plays a major role in treatment aspect because we have specification of treatment in different patients of same disease (based on patient's profile) and we treat the patient as a whole considering his प्रकृति, काल, अवस्था, बल etc...

Technology has no end and modern medical science, going hand in hand with technology is able to reach every nook and corner of human body without much difficulty and is making life better and better. Hence modern medical science is moving towards more advancements with the birth of extraordinary technologies to reach the minutest levels of human body carbon, hydrogen, oxygen of human body composition which is already achieved by Ayurveda with the concepts of panchamahabhuta siddhanta & prakriti-purusha, dosha-dushyamala concepts etc which comprises a human body, which is yet to be researched and derived by





modern medical fraternity!

The knowledge of traditional medicines, treatments and practices should be respected, preserved, promoted and communicated widely and appropriately based on the circumstances in each country;

Governments have a responsibility for the health of their people and should formulate national policies, regulations and standards, as part of comprehensive national health systems to ensure appropriate, safe and effective use of traditional medicine;

Recognizing the progress of many governments to date in integrating traditional medicine into their national health system, we call on those who have not yet done so to take action;

Traditional medicine should be further developed based on research and innovation in line with the "Global Strategy and Plan of Action on Public Health, Innovation and Intellectual Property" adopted at the 61st World Health Assembly in 2008.

Governments, international organizations and other stakeholders should collaborate in implementing the global strategy and plan of action.

Governments should establish systems for the qualification, accreditation or licensing of traditional medicine practitioners. Traditional medicine practitioners should upgrade their knowledge and skills based on national

requirements.

The communication between conventional and traditional medicine providers should be strengthened and appropriate training programmes be established for health professionals, medical students and relevant researchers.

1946 - Bhore committee recommended utilization of Indian medicine practitioner's service in health delivery

1953 - Pharmaceutical Enquiry Committee headed by Dr. Bhatia, for intensive research in indigenous drugs of Ayurveda.

1955 - Recommendation of Dave Committee for uniform standards of Ayurveda education

1956-57 - Establishment of Institute of Post-Graduate Training and Research in Gujarat Ayurvedic University, Jamnagar, Gujarat

1958 - Udupa Committee setup. It recommended that there is a need for integrated system of medicine and a training course in Siddha and Ayurveda

1963-64 - Establishment of Drugs and Cosmetics Act, 1940 for Indian systems of medicines/drugs

1964-65 - Establishment of Central Board of Siddha and Ayurvedic Education

1969 - Setting up of an apex Research Body for Indian medicine & Homoeopathy, 'Central Council for Research in Indian Medicine and Homoeopathy (CCRIMH)'



1971 - Constitution of Central Council of Indian Medicine (CCIM) under IMCC Act - 1970 for regulation of education and practice

So, considering today's situation where it is nearly impossible to make 100% use of ancient concepts & tools for the current trend of clinical practice and when so many modern technologies can make our approach much more accurate, it is definitely a boon for the whole mankind. But the theme of any medical professional should be the betterment of the patient without crossing the limitations of freedom of integration and to maintain the identity of their stream of medicine. It is not right to assume that each system of medicine is a competitor for us, so there should not be any professional rivalry in blending up of two or more systems when the patient is their priority (example - modern surgical procedure done to a patient and managed by Ayurvedic medicines in post operative condition followed by diet, yoga and naturopathy techniques later on to improve the quality of life). This makes the patients feel comfortable when they get the best of all under one roof. And this is possible effectively only when all doctors of each system of medicine is well informed about the pros and cons of parallel systems of medicine which should start from undergraduate levels of education. Depending upon what kind of case it is, integration helps us in distinctive manner like modern diagnosis & Ayurvedic management and

Ayurvedic diagnosis with modern management because not all cases are same. And another advantage of integration is that in the current trend of practice it is very difficult to discuss or communicate with other modern doctors using Ayurvedic terminologies since they do not have an exposure to our science, but we do understand their concepts since we are aware of it. So this integration would make it easy to communicate well & work together for a better outcome. But when integration happens in learning and working pattern, the Ayurvedic fraternity also demands integration in the pay of Ayurvedic doctors equal to modern doctors and only then it makes a complete sense in making a perfect blend of both medical streams. The aim should be to extract the best from the past (Ayurvedic principles) and extract the best from the present (modern principles) to build up a good rapport between both sciences for the benefit of the patient category in future.

In this regard there has to be a National System of Medicine formed (like that of China where they extract the advantages of other systems and strengthen their own system) comprising of Integrated Systems functioning sincerely keeping service to mankind as their motto and at the same time taking strict measures to monitor the practitioners not to go beyond the limits of the freedom of integrated practice.

“आयुर्वेदो अमृतानाम्”

# परिषद गीत

सभी सुखी हों सभी निरामय, हम सेवा संकल्प न भूलें।  
स्वास्थ्य साधना के हम साधक, शील विनय व्यवहार न भूलें।

राज्य स्वर्ग की नहीं कामना, नहीं मोक्ष की चाह हमें है,  
दुःख से पीड़ित आरत, आहत, बस इनकी परवाह हमें है।  
सबल राष्ट्र हो, स्वस्थ जगत हो, स्नेहामृत का सार न भूलें,  
स्वास्थ्य साधना के हम साधक, शील विनय व्यवहार न भूलें॥

माना व्याधि अगाध है, इससे बचना नहीं सरल है,  
पहला सुख है निरोगी काया, पाना सब की चाह प्रबल है।  
कठिन चुनौती मार्ग कंटकित, साहस धैर्य अपार न भूलें,  
स्वास्थ्य साधना के हम साधक, शील विनय व्यवहार न भूलें॥

करुणा, दया, मैत्री, शुचिता, हृदय प्यार झंकार भरा हो,  
कार्य कुशलता, ज्ञान, विशदता, पुलकित सुरभित वसुन्धरा हो।  
सृजन-शक्ति, सद्भाव-समन्वित, धरती का श्रृंगार न भूलें,  
स्वास्थ्य साधना के हम साधक, शील विनय व्यवहार न भूलें॥

आधि व्याधि का घर जो तन है, परमेश्वर का पावन मन्दिर,  
भरे कल्पना भाव अनगिनत, आयुर्वेद ज्ञान अति सुन्दर।  
कीर्ति कौमुदी की गरिमा में, सेवा, श्रम, उपकार न भूलें,  
स्वास्थ्य साधना के हम साधक, शील विनय व्यवहार न भूलें॥



विश्व आयुर्वेद परिषद् द्वारा आयोजित नव वर्ष (वि० सं० २०७०) के अवसर पर विभिन्न कार्यक्रमों की झलकियां

वि व आयुर्वेद परिषद् के लिए प्रोफेसर सत्येन्द्र प्रसाद मिश्र, महासचिव द्वारा नूतन ऑफसेट मुद्रण केन्द्र, संस्कृति भवन, राजेन्द्र नगर, लखन से मुद्रित कराकर, 1/231 विराम खण्ड, गोमती नगर, लखन -226010 से प्रकाशित प्रधान सम्पादक- प्रोफेसर सत्येन्द्र प्रसाद मिश्र