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AYURVEDIC RENAISSANCE

THE COMPLETE MAGAZINE ON NATURAL HEALTHCARE

- THE PSYCHOSOMATIC Vs SPIRITUAL INTEGRATION THE AYURVEDIC VERDICT IN JIVANMUKTI - II
- CONCEPT OF VYADHIKSHAMATVA
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> *-Susrutha Samhita*

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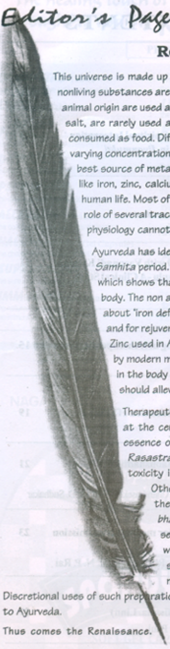

Role of Metallic Elements

This universe is made up of *Panchamaha bhutas*', the five proto-elements. All living and nonliving substances are constituted by them. Living substances of both plant origin and animal origin are used as food and medicine. But non-living substances, except common salt, are rarely used as food. This does not imply that metals and minerals are not consumed as food. Different parts of plants contain several metals and minerals with varying concentration. Metals in the plants are in easily absorbable forms and are the best source of metallic content in human body. Some of these metals and minerals like iron, zinc, calcium, potassium, sodium, etc. are vital for the very existence of human life. Most of the elements present in nature are present in human body. But role of several trace elements are unknown, though their participation in the normal physiology cannot be ruled out.

Ayurveda has identified the value of metallic elements in the body right from the *Samhita* period. Metals like iron, gold, silver, copper etc. are used in *Rasayanas*, which shows that they are in one way or the other curative or nutritious to the body. The non availability of these metals shows deficiency symptoms. We know about 'iron deficiency' but not gold deficiency'. Gold is used as an aphrodisiac and for rejuvenation in Ayurveda. The highest concentration of gold is in testes. Zinc used in Ayurveda as *Rasayana* is also identified as an essential nutrient by modern medicine. According to Ayurveda all such trace elements present in the body should have specific actions and therefore supplementing them should alleviate diseases and make the body healthier.

Therapeutic *Rasasastra*, developed from this principle, has mercury '*Rasa*' at the centre. *Rasa*-the supreme *Yogavahi* capable of assimilating the essence of everything coming into contact with it-itself is a *Rasayana*. *Rasastra* tells that mercury is a toxic substance. It describes how the toxicity is removed through purification and is converted to '*Amruta*'. Other metals and minerals used in the processing of '*Rasa*' have their own curative and nutritional values. *Abrah bhasma, Loha bhasma, Swarna bhasma, Pravala bhasma, Sudha Gandhaka* and several such drugs become valuable in practice even without mixing with *Rasa*. Dosage of herbal preparations can be reduced by adding suitable mineral drug. There are several minerals and herbs in a major *Rasa Yoga* which can be used in a wide range of diseases. Discretional uses of such preparations give faster relief to patient, good will to physician and fame to Ayurveda.

Thus comes the Renaissance.

Dr. K. Unnikrishna Pillai

THE PSYCHOSOMATIC Vs SPIRITUAL INTEGRATION THE AYURVEDIC VERDICT IN *JIVANMUKTI* - II

Dr. N. USHA DEVI *

THE UNIVERSAL ENERGY ASPECTS AND THE HUMAN BODY

As discerned in the above discussion *Prâna* is the universal life energy that governs the entire universe. The internal localised energy of *Prâna* or the energy of consciousness *(Cit)* is like a magnetic force. It compels one to strive for the discriminative knowledge of consciousness which is the essential state of *Jivanmukta* and enjoy the everlasting power of Bliss. There is also another phase of magnetic force - the repulsive force which projects the ego element that gives rise to conflicts, tensions and diseases and even leads to death. The universal force of repulsion is responsible for the creation of human bodies and hence it has a close relation with the energy aspects of the body.

As an example, our nervous and circulatory systems and the heart are influenced by solar radiations, Human blood (circulatory system) undergoes 'significant changes in proportion to the intensity of cosmic radiation. This results in the increase or decrease of white corpuscles. The agitation of the blood may cause coronary ailments due to intense solar radiations.

According to Prof. Libby (University of Chicago) all living things are radioactive. This radioactivity is derived in the first instance from whatever cataclysm in stars or space that gives rise to cosmic radiation The brain, the nerve system, the circulatory system as well as the respiratory system are called closely connected to the energy of the sun, so exposure to sunlight is vital to the health of all.

Man can influence the electromagnetic forces of the universe and that this can lead to an increase in mental instability. Our body is constituted of innumerable glands secreting themselves in harmony with our chemically changing environment and is responsible for emotions, desires, mental balance, and rate of growth and length of life on this planet. The conjunction of the sun with the energy of moon releases a great amount of energy that either will increase or decrease somatic activities. The electromagnetic disturbances produced from the surface of the sun generate profound effects or organisms having a weak physical resistance and these are also capable of upsetting the balance of the human body. Human nature is a resultant of either of these forces-attractive or repulsive.

The magnetic force of attraction has great capabilities in the sense that it can attract others. The magnetic force of attraction between different bodies, otherwise called synchronized energy is solely responsible for the determinants such as love, hatred, affliction, personality and the so on. In an ego-fetched magnetic energy, these determinants move away from the state of '*Jivanmukti*'. It is also very significant that this relational nature between the created beings either between two human beings or between human beings and animals. Highly cordial relationship within a family is dependent on this magnetic force of attraction that a husband and wife get united and develop healthy relations among the individual members despite originating from wide special areas. Again, an animal and its counterpart can also experience such a unity of magnetic forces of attraction. Hence it is said that the universalisation of magnetic force is the symbol of *Jivanmukti*. When magnetic forces of the knowledge concur with the universal being there is attraction between these two and a man reaches the highest spiritual state of existence - the '*Jivanmukti*'. It is the real secret of love among the constituents of nature.

If the magnetic force is high in a person, it will be reflected through the halo of energy that influences others forces. As an example, in ancient times, the seers in India were able to create a land of synchronised energy wherein every opposite lived in complete harmony. It was the '*Tapovanam*'. Every human body has to be made a '*tapovanam*' by localising the magnetic force that synchronizes all energy and activates each somatic cell allowing it to evolve into its highest possible level and finally be in conjecture with the universal principle of energy. Hence a deeper understanding will bring in a healthy existence of all creatures - a 'Blissful life'.

A careful analysis of the constitution and functioning of the body helps to identify the subtle energies within each part of the body. The main aim of psychological analysis focuses on a continuous transformation and upgrading of the mental order of a person that leads to a harmonious creative evolution in nature. Therefore the basic thrust is to build a body-mind complex based on dissociation of the ego-element. A sound mind has the potential to serve the cause of the world that is nothing other than disentanglement from diseases. In this endeavour efforts should be diverted to identify the subjective version the objective elements.

From a review of the ancient *Upanishadic* literature, it can be formed that the seers of the ancient age who deeply concerned with the functioning of each somatic cell in the body. They had proposed strong measures to contain (control) the irregularities created by the imbalance in the three forces of life, energy and light. They had indirectly disclosed that fly consciousness and existence *(Jivanmukti)* on the final goals of every being with due recognition of mental discipline. They had advocated the theory that mind when tranquilized through discerning of the disturbances *(kleœas)* created by the ego experiences a peculiar kind of bliss whereas it become subjugated to the ego, it experiences sorrows and pains or the properties of inertia *(tamas)*. Diseases of the body according to these seers are traceable to these malfunctioning of the mind. Since all the somatic cells are governed by the mind, the functioning of these depends on the soundness of the mind. The best way to control these irregularities within the domain of the psyche is the meditative process (localisation of energy in the soul) which brings in natural psychological order. But the seers did not propose the complete discerning of the materialistic tendencies but to minimize the risk of the effects of the adherents for a healthy development. In this sense, the mind as an "atomic something" becomes devoid of the instinctive phenomenon and is made pure or *sâttvic* – that is the experience of the bliss supreme. Hence they had declared that the mental status denotes the index of happiness in the existential realm.

The psychosomatic disorders and their effects.

The *Upanishadic* seers had evaluated the causes of mental disfunctioning and they had proposed six such hitches which have to be well attended to experience a healthy life. They are *kâma* - desire or sexual passion, *krodha* (anger), *râga* (passion) *udvega* (fear & anxiety) *dvesha* (aversion) and *mada* (egoism as pride - envy) The effects of these can be in the following way-

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Causes	Effects
1. *Kâma* - Desire	Root causes of deadly diseases like AIDS, hepatitis etc. Affect the endocrine glands and metabolism. It is due to the attachment to the objects of senses. Attachment gives rise to desire leading to anger, bewilderment, loss of memory and finally destructive of intelligence. Sexual excitement may also lead to fear, worry & various kinds of headache.
2. *Krodha*-anger	Results the quantum of excitement of the somatic cells bringing in more blood to the cells that causes more fluids to be concentrated in these cells resulting in headache, loss of appetite and constipation.
3. *Râga*-passion/ Attachment	Root cause of anguish leading to anxiety and turbulence in sense organs leading to anger.
4. *Udvega*-anxiety	It is highly antagonistic as it causes neurotic disorders-hysteria, insomnia, migraine etc. Disfunctioning of the gonads and gastro-intestinal systems - heart diseases, BP and skin diseases are also a product of this.
5. *Bhaya* (fear/worry)	causes exhothalmic goiter, affects the functioning of gonads, gastrointestinal systems, appendice, ulcers. Eczema is a skin disease resulting from fear and worry.
6. *Dvesa* (Aversion)	causes bewilderment, emotion and stress. This leads to neurotic diseases, gastrointestinal problems, heart troubles BP, Respiratory diseases and some types of skin diseases.

Stress anxiety, fear, conflict, and repression when become dominant in the mental realm it leads to hysteric blindness, glaucoma, deafness, vertigo, menier's syndrome and even nervous breakdown. So a control of all these six impediments to good health is to be essentially recognized on psychotherapeutic ingredients.

The Therapeutic measures to control the mind - body function

According to the *Upanishads*, before embarking upon the control measures, it is very important to understand the role of a therapist. The therapist is referred to as *'Guru'* (preceptor) - one who is an experienced person and is dissociated from all the afflictions of the mind (a person of self- realization). Only he can correctly analyse the psychological disorders. Through his knowledge and the fact that his mind is universalised (ie. capable of interpreting others mental status because of its magnetic force of attraction), such a *'Guru'* can co-ordinate the activities of the concerned body. The aim of such a therapeutic endeavor is to integrate the diseased minds through corrective measures and incorporate it with the universal force. The seers called the instinctive mind as 'bound' *(baddha)* and the stabilised mind as 'liberated' *(mukta)*. The final goal is *'Jivanmukti'*. It does not imply that the body is relieved from the mind in the state of *Jivanmukti* but it is dissociation with the ingredients of the ego.

The *Upanishadic* Methodology

Psychotherapy, according to the *Upanishads* is related to the phenomenon of the mind that is to be concentrated upon as *'Brahma'* - *'Mano Brahmetyupâsîta'*[2]. The necessity of this therapeutic measure is the disjunctive disorders occurring within the realm of the mind. Positive mental dispositions are inspiring in the development of a solid mental structure that can strictly govern the material energy. The upanishadic scheme is that first of all one should

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be able to discriminate the subjective and objective dispositions. The subjective ones if they go beyond control will lead to high mental disorders. But if the functions of intelligence are made to overpower the mental dispositions, a calmness and harmony of mental functions will recur and this will lead to a happy life. This is because in the *Pancakoœa* concept, the mental sheath lies in between the material and the intellectual ones. Only when the mind is directed towards the innermost sheath of bliss *(Ânandamaya)*, there will be happiness. If the mind is subdued by material aspects, which are effectuated by the element of ego, it will be directed towards fulfilling the desires to satisfy the material needs turning away from the inner domain that cannot bring complete satisfaction as desires always remain unending.

The Upanishads propose the gradual dislodgment of the adherents to the mind and understand the relation between the individual and the cosmic nature of the mind. This will bring the 'control' factor into dominance and such a pursuit will lead to a structured mind unaffected by external affairs. This idea is reflected in the words of O.S. Marden, 'Physical discord always mean mental discord, for if there had always been perfect harmony in the mind, the body would be in harmony'.

Advaita Vedânta recognises that the five vital airs - *prâna, apâna, vyâna, udâna and samâna* - control the mental functions of respiration, digestion, assimilation and excretion at the behest of the mind. Hence any imbalance occurring in these will lead to the damage of the functions of the body. The *Atharvaveda* also enunciates that the three gunas prevailing in the mind - *mala* (impurity), *vikshepa* (fickleness) and *avarana* (veil) - should be dissociated off to secure a perfect balance between the body and the mind - both individually and universally.

The existential relation between man and plant life.

Chândogyopanisad declares that 'the essence of all beings is earth, the essence of earth is water, the essence of water is plants, the essence of plants is man, the essence of man is *Vâc*.........'[3] This scriptural statement shows the close relation between man and plant life in the Nature. According to this statement, man is related to the plants at the rear part of the brain and *vâc* to the outgoing end. Man is related to the cosmos through plants in the sense that human consciousness is developed from the universal and extremely delicate sensitivity of plants through material energy as recent discoveries in science reveal. The plants are extremely sensitive to vibration of everything and every being. They are sensitive even to the vibrations produced out of speech *(vâc)*.

Man has to be aware of the plants because these form his immediate and intimate background (essence). Through plants alone man can acquire cosmic sensitivity. Plants also have vulnerability and openness to the changing environment. These three together constitute the creative energy of the plants. Therefore plants can give us these three potentialities that are essential for the survival of man and for a blissful life. It is significantly noticeable that each plant has its own creative energy that can stimulate the somatic cells in different ways and a transfer of this creative energy from plants to human beings can bring the psychological disorders under control. The creative energy in plants also denotes the 'kindness' element. Hence destruction of plants has to be taken care of.

Herein comes the healing power of herbs and plants - the therapeutic measures through transfer of the four components of creative energy. But it is to be remembered in this context that for every kind of psychological disorder, there is a different plant species that can provide appropriate amount of creative energy component. This is the destination of Ayurveda in its most sincere and relevant terms. It

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CONCEPT OF VYADHIKSHAMATVA

Dr. SANTOSH. N BELAVADI M.D (Ayu)*

INTRODUCTION

Every living organism is struggling continuously to maintain its structural and functional integrity. There is struggle between the individual and the environment; if an individual wins he enjoys good health and other wise suffers from diseases. *Manusmriti* says, when a seed is sown in non-fertile soil it is destroyed*[1]. In the same manner in good *Vyadhikshamatva Shareera* the disease will not manifest. The concept of immunity has recently been developed by the modern science but it was very deeply studied in all aspects in Ayurveda during *Charka's* period.

Unknowingly we intake so many micro organisms or other foreign substances and these produce toxins in the body; but every body has got capacity to destroy the toxins produced by the organisms because of good immunity power of that individual.

Vyadhikshamatva

Vyadhikshamatva is the resistance power against diseases. When etiological factors come in contact with the body they try to produce diseases; at the same time body tries to resist the disease. This power of the body, which prevents development of the disease and resists developed disease, is called *Vyadhikshamatva*. *[2] It is mainly depends upon the equilibrium of *doshas* and *dhatus*, optimum *bala* and *ojus*. *Ojus* (essence of saptadhatu) is the contributing factor for *Vyadhikshamatva*. *Ojus* is also stands for -*Rasa*, *Rakta*, *Sleshma* and *Bala*.

Rasatmaka ojus depends property of body fluids and secretions circulating throughout the body. Salivary secretions, lacrimal secretions etc., contains a bacteriolytic substance called Lysozyme.

***Raktha** is the life saving ojus* *[3]

Sleshmarupa ojus is the contributing factor to body defence mechanism*[4]

The albumin, Globulin etc. present in Blood plasma play an important role in body defence mechanism.

Bala is the vital power for defence mechanism*[5]

Vyadhikshamatva depends on *bala*. *Charaka* opines *Vyadhikshamatva* is not same or *samaana* in all *sareera;* it differs from person to person*[6] *Dalhana* commented that *bala* of the *sareer* is derived from *Ojus**[7].

Hence *Vyadhikshamatva* depends upon *Ojus*.

It is observed that in diseases accompanied by profuse *dhatukshaya* there is also diminution of *Bala*, *Ojus*, and *Vyadhikshamatva;* the diseases are *rajayakshama*, *prameha*, *pandu* and *kushta*.

Classification of *Vyadhikshamatva*

It is classified in terms of *bala* into three types as *sahaja, kalaja & yukthikruta**[8]

Sahaja balam: It is also called natural Immunity. The constitutional strength is present in every being

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since birth. It depends on the healthiness of *sukra* and *arthava* and also *uttama desha* and *kala**[9]. Again this is classified into **Species Immunity, Racial Immunity and Individual Immunity.**

Species Immunity: Certain species won't manifest certain diseases because they got natural resistance power against those diseases by birth.

Tetanus in Hens, Anthrax in Dogs and Tuberculosis in Goats are examples.

Racial Immunity: Certain races won't manifest certain diseases because they got natural resistance power against those diseases by birth.

Ex: Negroes-Yellow Fever, Jews-Tuberculosis, Chinese-Scant fever.

Individual Immunity: Person used to expose many number of microorganisms or toxins produced by them; few may get infected and others do not. This indicates the presence of an individual immunity and it varies from person to person.

***Kalaja bala*:** *Kalaja bala* is obtained from *Rutuanusaara* and *Vayanusaara**[10]; *Hemanth* and *Shishirarutu* are *uttama balakara rutu* and *Yavuanavastha* is *balakara.*

***Yukthikruta bala*:** The *Yukthikruta bala* is one which is achieved by the proper combination of *ahara* and *vihara* and proper *vyayama**[11]. Here *Chakrapani* commented for *yoga as Rasayana prayoga.*

IMMUNITY: It is defined as a defence mechanism against toxins produced by the microorganisms, foreign proteins ex-bacteria viruses etc.

Types of immunity: Immunity is of two type - innate immunity (natural immunity) and acquired immunity. Acquired immunity is further classified into humeral immunity and cell mediated immunity.

Innate Immunity or Natural Immunity of a person is generally decided according to the genetic code that is present since birth. It is a general process.

Acquired Immunity: The human body has the ability to develop extremely powerful specific immunity against invading agent such as bacteria, viruses and other toxins. This is nothing but acquired immunity.

Humeral Immunity: In which the body develops circulating antibodies that are capable of attacking invading agent.

Cell mediated Immunity: In which there is formation of large number of lymphocytes that are specifically developed to destroy the foreign agent.

Active immunity: It is the immunity, which an individual develops as a result of infection

Passive immunity: When antibody produced in one body is transferred to another to induce protection against the disease.

Mechanism of *Vyadhikshamatva* / Immunity

It is the interaction between the disease causing factors and body tissues.

When *dehadhatu bala* is *uttama* due to *nidana* they won't manifest the disease but when *dhatu bala* is *durbala* and the causative factors are *balavan* then *Vyadhi* will be manifested. *(cha.su.26)*

During the interaction between the antigen (*Deha dhatu pratyaneeka dravya*) and body tissue that is antibody (*Dehadhatu*), victory is gained over the weaker by the stronger.

Antigens- Bacterial or other foreign proteins entering blood stream and tissue is antigen.

1. **Exogenous**-Present outside the body in the form of bacteria, virus, protozoa etc., leads to diseases.
2. **Endogenous**- Foreign proteins, which are present inside the body, became against our body tissue leads to disease.

Antibody- An immunoglobulin molecule that reacts with specific antigen.

Interaction between antigen and antibody

When antigen coming in contact with the antibody they struggle each other; if antibody engulf the antigen

there the disease process cannot manifest it is because of good immunity. If antigen destroys the antibody there the disease process manifest because of poor immunity.

Types of immune response

1. **Cell mediated immune response (CMI)**- it has attacking cells and particularly effective against
   a) Intracellular pathogens like fungi, virus etc.
   b) Some cancer cells
   c) Foreign tissue transplants
2. **Antibody mediated immune response (AMI)** It works mainly against
   a) Antigens dissolved in body fluids
   b) Extra cellular pathogens multiplied in the body fluids but rarely enter the body cells.

The route of administration of antigens can influence immune response. Eg: intradermally administered antigens evoke strong cell mediated immune response; when given intravenously results in the antibody formation.

The humeral immunity is due to the circulating anti bodies belong to the immunoglobulin proteins of plasma. They are of five classes composed of one or more similar units. Each unit consisting of two pairs of identical polypeptide chains.

IgG – is the most abundant immunoglobulin in the plasma and extra vascular fluid. It combines with toxins and neutralizes it.

IgM- it has the function in destroying microorganisms. Especially effective in activating compliment to produce immunolysis of foreign cells by digesting holes in the cell membrane at the sites where antibody has reacted. The presence of this antibody indicates the recent or continuing infection by the virus.

IgA- is secreted by local plasma cells in the intestinal mucosa, the lacrimal glands, respiratory passages and salivary glands. It can enhance the bacteriolytic activity.

IgE- has the property of attacking to most cells and basophill leucocytes with release of histamine by causing anaphylactic hypersensitivity with in few minutes.

IgD - the properties are unknown but it acts as lymphocyte surface antigen receptor.

The several types of T cells classified as

1. **Cytotoxic T cells**: which attack directly on cells and capable of killing microorganisms.
2. **Helper T cells**: these help in multiple ways as
   a) Increasing the activation of B cells, cytotoxic T cells and suppressor T cells by antigens.
   b) Stimulation of activity of other T cells and
   c) Activation of macrophage system.
3. **Suppressor T cells:** which are capable of suppressing the functions of both cytotoxic and helper T cells.

Charaka nidana fourth chapter explains the importance of *Vyadhikshamatva* in the manifestation of the disease in *Prameha**[12]

Incomplete or complete manifestation of the disease is dependent on characteristics of *nidana, dosha* and *dushyas*. In good immune power person naturally having *Vyadhi virodhana sakti* i.e., *vikara vighata bhava.*

The person who has got weak immune power prone for the diseases i.e., *vikara vighata abhava.*

In *guru vyadhi* person when *satva, bala* and *sareera* are in *uttama avastha* it seems as *laghu vyadhi* because of his *uttama vyadhikshamatva sareera.**[13]

In *laghu vyadhita* when there is *heena avastha* of *satva, bala* and *Shareera.*

It seems as *Guruvyadhi. (Chakrapani)**[14]

Roga utpattikrama: When the *nidana doshas* and *dushya* are not coming in contact due to *durbala desha* the diseases are not manifest; if manifest in later stage *ALPA rupa roga utpatti* or *ALPA lakshana yukta roga utpatti*. (*cha.ni.4*)

- *Vikara ajanana*
- *Chirenecha vikara ajanana*
- *Anuvikarajanana*
- *Asarvalingayukta vikara janana*

The *Ashtaninditas* are incapable of resisting diseases. They are

- *Atidheerga and Atihruswa*
- *Atiloma and Aloma*
- *Atikrushna and Atigourava*
- *Atisthoola and Atikrusha*

Ashtaninditas are *durbala* because the *sareera bala* mainly depends upon the healthiness of *dhatus*. Hence in persons having improper *dhatus* they are very weak and the *sareera bala* depends upon *manasika bala*; which *heena satwa* also considered as *durbala*. So the common factor of all these eight individuals who cannot resist the disease is because of their weak constitution.

Asthaninditas constitutions considered as undesirable because:

Atikrishana and *Atigoura* are related to *Rakta dhatus* and *Brajaka pitta.*

Atideerga and *Atihruswa* are related to *Asthi dhatus.*

Atiloma and *Aloma* are related to *Mala* of *Asthi dhatu.*

These eight types of *ninditas* are mainly related to hormonal dysfunction of the body. This shows that our *acharyas* are having the concept of Endocrinology.

Factors affecting *vyadhikshamathva*

They are classified in terms of ***ahara, vihara, manasa and annya.***

Aharaja: *Anashana, Pramitashana, Rukshapana, Adika ushna, teekshna, katupradhana aharasevana.*

***Viharaja*:** *Ativyayama, Ativyavaya, Diwaswpna, Ratrijagarana* and *Vegadharana.*It leads to *vatadi dosha prakopa.*

***Manasa*:** *Chinta, Shoka, Bhaya, Krodha, Manovyata*. It leads to both *shareerika* and *manasikadosha prakopa.*

Annya: *Abhighata, Bhotopaghata, Kala vaiparitya, Dhatukshaya, Vyadhikarshana.*

Factors responsible for *vyadhikshamatwa*

- ***Balavat purushe desha janma***- Birth in a place where people are naturally strong.
- ***Balavat purushe klecha***- Birth at a time when

They don't possess sufficient resistive power against the disease.

The qualitative and quantitative proportions of *dhatus* are not in proper state; especially *Rakta, Mamsa, Asthi* are the major *dhatus*.

The *anguli pramana* of the body are abnormal.

In *Asthaninditas dhatus* like *Rakta, Mamsa, Asthi* are in abnormal condition and *dhatwagni* also impaired.

Atisthoola and in *Atikrusha* are related to *Mamsa* and *Medha dhatus*.

people naturally gain strength.

- ***Sukhach kala***- Favorable time
- ***Bheeja kshetra gunasampanna***- Excellence of the qualities of *Sukra* and *Arthava*.
- ***Ahara sampascha***- Excellence of ingested food
- ***Shareera sampascha***- Excellence of physique
- ***Satmya sampascha***- Excellence of *satmya*
- ***Swabhava samsidhischa***- Favorable disposition of race and species.
- ***Yauvana***
- ***Samharsha (cha.sha.6/13)***

To P. No. 30

MANAGEMENT OF PCOD WITH *VARUNADI KWATHA AND KANCHANARA GUGGULU* -A CLINICAL STUDY

Dr. GAYATRI BHAT N.V. MS (PT&SR)*

In this most advanced modern era, the humans are gifted with lot of sophistication, luxuries but at the same time left with sedentary ways of life, stress induced hectic, unhealthy schedules are strongly influencing the haemostasis leading to the exhibition of number of pathologies, one amongst them being Poly Cystic Overian Disease.

PCOD is becoming increasingly prevalent now-a-days due to the fatty food habits and ecological factors. It is one of the main causative factors for female infertility. Significant ovulatory dysfunction may partly or wholly account for infertility in one third of women and PCOD is the most common disease interfering with ovulation. It also causes a lot of psychological and interpersonal difficulties to the affected individual in relation.

The high incidence and complications of PCOD, which is the challenging problem to the gynecologists need appropriate non hormonal management. The heterogenesis of the disease cannot be manipulated by the single formula of ovulation induction. Hence the compound formulations with time tested drugs which will act upon different systems of the body, were selected for research.

Among such formulations, *Varunadi Kwatha and Kanchanara Guggulu* have been tried in the present study on 15 patients. A control group of 15 patients were treated with Clomiphene Citrate.

All the patients included in the study were advised to follow discipline in life style and to give up stress in order to prevent long term consequences. No side effects were observed in any patients during treatment period and follow-up period. At the end of 3 months, results were collected and statistically analysed by using paired and un-paired 't' tests. It was found that regarding the Interval of Cycles, 60% improvement was observed. With respect to duration of menstrual cycle, 65% improvement was found. On amount of bleeding, the formulation showed 71% effectiveness.

INTRODUCTION: Polycystic Ovarian syndrome (PCOS) remains one of the common problems in women to be faced by Gynecologists as well as Endocrinologists, with a wide spectrum of clinical presentations.

PCOS is becoming increasingly prevalent now-a-days due to the faulty food habits and ecological factors. It is one of the main causative factors for female infertility. Significant ovulatory dysfunction may partly or wholly account for infertility in one third of women and PCOS is the most common disease interfering with ovulation. It also causes a lot of psychological and interpersonal difficulties to the affected individual in relation.

Menstruation is the sign if womanhood. In Ayurveda the menstrual blood is having synonyms like *Raja, Shonita, Artava, Puspa, Rakta*.

On a thorough search through classical textbooks of Ayurveda in this regard reveals that reproductive age of female life is characterized by physiological activity of *Artava*.

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The *Artava* has got two aspects depending upon its function and is named as *Antaha Puspa* and *Bahir Puspa*. During the reproductive age of female *Rasa Dhatu* undergoes transformation in *Artava Vaha Srotas* and becomes apparent outside in the form of menstruation. This is also referred by the name *Ritu Srava*.

The *Antah Puspa* is said to circulated all over the body and has got two distinct functions. The so called *Vyanjanas* or female phenotypic characters, that become apparent during reproductive age of female phenotypic characters, that become apparent during reproductive age of female is depending upon this *Antah Puspa* or *raja*. This particular *Antah Pushpa* is attributed to *Phala yoni*, a part of *Artva Vaha Srotas*. This part is also responsible for secretion of *Artava* in sexual relation, which take part in fertilization.

These elaborations of Ayurvedic literatures revels that menstruation, ovulation and female phenotypic characters are because of the *Artava* and these are the physiological functions disturbed in PCOS and due to these the lady will be having irregular menstruation without *Antaha Pushpa*, altered female phenotypic characters. Contradictory to this, male characters like appearance of bread and moustache may occur. As specified in *Charaka Sthana* 12 the defect in the *rajas* can cause the features of *Napumsakatva*.

So to say this illness is related to *Artavavaha Srotas* in general and particularly the *Phala yoni*. The *Phala yoni* can be interpreted to ovary. PCOS is an illness related to ovary.

Enlargement in the size of the ovary is one of the structural change observed in this illness. Enlargement of structures or mass lesion is referred by the name *Arbuda* and *Granthi* in Ayurveda. More particularly the mass lesion containing fluid is referred as *Granthi*.

Considering all these factors *Varunadi Kwatha* with *Granthi Vilayana* property and *Kanchanara Guggulu* with *Lekhana* property are selected for the present study.

MATERIALS AND METHODS: For the present clinical study, 30 patients fulfilling the diagnostic criteria of PCOS were randomly selected from the OPD & IPD of SDMCA & H, Hassan.

AIMS AND OBJECTIVES OF THE STUDY

1. To assess the efficacy of *Varunadi Kwatha* and *Kanchanara Guggulu* in the management of PCOS.
2. To compare the effect of *Varunadi Kwatha, Kanchanara Guggulu* with Clomiphene citrate in the management of PCOS.

CRITERIA OF SELECTION: Patients presenting with complaints of menstrual abnormalities, hirsutism, infertility & Obesity were selected for the study.

A detailed history of all the cases including age, occupation, socio-economic status, parity, menstrual & obstetric history, etc., were recorded in a specially prepared proforma.

A thorough physical examination of all the cases were carried out including general body built, weight, height, etc. pelvic examination including per speculum and per vaginal and bimanual examination among married women were done to rule out any structural abnormalities of genital organs.

Laboratory investigations including USG, Hormonal assays.

INCLUSION CRITERIA: The pateints were selected with diagnostic criteria.

- Only cases diagnosed as polycystic ovaries either right or left side shall be included having, disordered or absent menstrual cycle with or without Hirsutism.
- USG studies suggesting anovulation.

EXCLUSION CRITERIA

- Abnormal menstrual cycle and amenorrhea not due to PCOS confirmed by USG studies.

- PCOS with multiple hormonal involvements.

INTERVENTIONS: Pateints fulfilling above criteria were assigned into 2 groups.

Group 'A' of 15 patients were given *Varunadi Kwatha* 2 *Pala* (100ml) in divided doses (30ml thrice daily) before food and *Kanchanara Guggulu* 1 *Masha* (1 gm) in divided doses (500 mg. twice daily) for 3 months.

Group 'B' of 15 pateints were given Clomiphene citrate, 50mg from 2nd-6th day of natural or artificially induced menstruation for 3 months.

FOLLOW UP PERIOD: The pateints were followed up once in every fortnight for a period of 3 months after the prescribed plan of treatment. Patients were observed once in a month after treatment for 3 months.

ASSESSMENT CRITERIA

Interval between two menstrual cycles	
30-45 days	Normal
46-90 days	Delayed
More than 90 days	Increased

which may be one of the causes in manifestation of this disease. Most of them were habituated to mixed diet, consuming more fat.

72.6% were unmarried and 37.4% were married.

Incidences according to *Prakruti* showed that majority of patients i.e., 85.8% were of *Vata Kaphaja Prakruti*. Regarding mental stress, 78% of pateints were having mental stress which is also a major cause for PCOS.

INTERVAL OF CYCLE: 66.7% of pateints were having 45-90 days, 20% of patients were having 90-365 days and 13.3% of patients were having 30-45 days interval.

Duration of Bleeding: 20% of patients were having <3 days duration, 46.7% were having normal duration, and 33.3% were having >5 days duration of bleeding.

Amount of Bleeding: There was equal distribution of patients i.e., 33.3% with excessive and normal menstrual bleeding. 26.7% pateints were having decreased menstrual bleeding.

Hirsutism: Only 20% pateints were having Hirsutic

Duration of Bleeding	
3-5 days	Normal
<3 days	Decreased
>5 days	Increased

Amount of bleeding	
Normal	1 pad per day with minimum soaking
Scanty	2 pads per day with complete soaking
Moderate	3-5 pads per day with complete soaking
Excess	More than 5 pads per day with complete soaking

OBSERVATION AND RESULTS: Out of 30 pateints of PCOS most of the pateints were from the age group of 18-23 years. Only 6.6% of pateints were from higher class. 29.7% were higher secondary.

Most of the pateints were belonging to urban area. Majority of them were leading sedentary life (52.8%) feature.

Acne: Only 20% pateints were having acne over face and back.

Obesity: 60% of the patients were having normal BMI (18.5-24.9) and 40% were having BMI <18.5.

Effect of treatment: Effect of treatment was assesed both clinically as well as based on ovarian morphology.

Effect on interval of cycles: In Group A, before treatment, the mean was 48.067, which was reduced after treatment to 47.933, 40.467 and 32.00 in 1st, 2nd and 3rd month respectively with value of t=3.197 and the P=0.006, it indicates the treatment was statistically significant.

In Group B, P=0.001 indicating that the treatment was statistically significant.

Comparison between groups revealed a P value of 0.433 which was insignificant and means that the change observed may be by chance.

Duration of Bleeding: In Group A, before treatment, the mean was 5.667, after treatment, it is reduced to 5.267, 4.6, 4.133 in 1st, 2nd and 3rd month respectively with value of t=1.841 and the P=0.087, it indicates the treatment was statistically insignificant.

In Group B, P=0.178 indicating that the treatment was statistically insignificant. Comparison between groups revealed a P value of 0.326 which was insignificant which means that the change observed may be by chance.

Amount of Bleeding: In Group A, the mean before treatment was 3.733, reduced to 3.000, 2.867, 2.177, during 1st, 2nd and 3rd month respectively with value of t=4.125 and the P=0.001, it indicates the treatment was statistically significant.

In Group B, P=0.036 indicating that the treatment was statistically insignificant. Comparison between groups revealed a P value of 0.814 which was insignificant and means that the change observed may be chance.

Volume of Ovary: In Group A, the treatment was not found effective in reducing the increased volume of Ovary.

In Group B, with P=0.022 the treatment showed statistically significant change.

Comparison between Groups showed a P value of 0.029 which was insignificant which means that the change observed may be by chance.

Number of Cysts: In Group A, the mean before treatment was 14.333 which reduced to 12.600, 12.600 and 12.067 during 1st, 2nd and 3rd month respectively with value of t=2.807 and the P=0.014, it indicates that the treatment was statistically insignificant.

In Group B, P<0.001 indicating that the treatment was statistically highly significant.

Comparison between Groups showed a P value of <0.001 which was statistically highly significant. It means the treatment in treatment given to Group B was more effective in regressing the cysts than that of Group A.

Ovulation: All the patients in both the Groups were having an ovulation. In Group A, the treatment failed to induce ovulation. In Group B, the treatment was found to be statistically highly significant in inducing ovulation with P value <0.001.

Overall effect of Therapies: 66% improvement was found in Group A and 34% in Group B. No change was observed in 33.33% of Group A and 20% of Group B. However, there was no complete cure in both the Groups.

Discussion: All the patients included in the study were advised to follow discipline in life style and to give up stress in order to prevent long term consequences.

It was found that regarding the interval of cycles, 60% improvement was achieved. With respect to duration of menstrual cycle, 65% improvement was found. On amount of bleeding, the formulation showed 71% effectiveness.

Conclusion

1. Poly Cystic Ovarian Syndrome (PCOS) is a condition involving disorder of ovary associated with deranged metabolism of lipids and carbohydrates and multiple hormonal involvements.
2. Patients with preliminary ovarian morphology were selected and treated with *Kanchanara Guggulu* and *Varunadi Kwatha.* Based on their actions on *Granthi* and *Antah Vidradhi*, they were found to be effective in normalizing and regularizing the menstrual irregularities.

Reference:
Charaka Samhita,
Sushruta Samhita,
Astanga Sangraha Sharangadhara,
Bhaishajyaratnavali,
Dehurtz's Text book of Gynecology,
Dutta D. C., Text book of Gynecology

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ARAGWADHA
-UNRAVELING NEW THERAPEUTIC DIMENSION

Dr. K. S. SETHU*

Aragwadha (cassia fistula) is considered as a drug alleviates *kapha-pitta.* Being the main ingredient of formulation like *Aragwadhadi Kwath, Aragwadh arishtam,* etc. it is mainly indicated in skin diseases. As a single drug also aragwadha is extensively used in ayurvedic practice.

The importance of cassia fistula in the conventional practice is mentioned intentionally. The research studies on different treatment modalities for psoriasis have been going on at CCRAS, institute Poojappura, Thiruvananthapuram, Kerala for more than forty years. The treatment protocol followed is not widely published. The only decoction included is of the bank of aragwadha. It is using for external applications like cleaning, danche, dhara, etc. as well as in internal administration. Aragwadha decoction found very effective in the treatment of severe inflammatory skin conditions with its *Kapha-pitta hara* property.

This article is not meant to describe the various properties and usages of *aragwadha.* But to bring out an accidently observed action of aragwadha decoction administered in skin disease patients for prolonged duration. A discussion I debate on the findings will be appreciated.

As mentioned in the beginning, skin disease, especially psoriasis is the focus of clinical research at CCRAS-Regional Centre, Thiruvananthapuram. *Aragwadha* decoction (scientifically processed water with bark of aragwadha) is the important drug in the treatment protocol followed in the IP & OP departments. Since *Kushta* is slow healing, patients continuing the medicine for long duration. Remarkable change had documented. Even after complete cure and discharge from the hospital, some patients are noticed for coming to the OPD to take *Aragwadha Kwath.* Middle aged males cure identified as regular repeats only for the decoction. They were ignoring the advice to discontinue the medicine and warning on drug tolerance. On serious interrogation one patient revealed the secret of his present requirement for aragwadha decoction. He is a widower for the last three years. He used to have sex drive and most often it is so intense to loose his control. It was at that time he admitted in the institute for the treatment of skin disease. He noticed substantial reduction in his libido with the progress of treatment. The stoppage of medicine leading to relapse of sexual urge.

He has been continuing the medicine for the last few months. During his IP treatment he shared the experience with others. Many of them identified the same and continuing the decoction to control excessive sexual urge. He repeated his request to get aragwadha decoction uninterrupted.

My husband also is an ayurvedic physician. He is mostly dealing with mentally challenged patients. I discussed the unraveled the action of *aragwadha* with him and our colleagues. Widowers and persons residing away from partners might have frequent sexual drive following erotic thought in loneliness and

To P. No. 18

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Aragwadha - Unraveling... From P. No. 15

dreams-leading to prostatic secretion and erection. According to ayurveda the continuous suppression of sexual urge is believed to be the cause of *suklasmari* (Parostitis)*.

The amazing action of *aragwadha* is the absence of erection even after erratic thoughts. If the property of aragwadha to control unnecessary sexual drive is used clinically, it will be a real contribution to the treatment of different perverted sexual conditions and control of prostosis. Definitely it will be a boom to widowers and gauges living separated from partners. Detailed study on pharmacological properties may lift *aragwadha* to a 'wonder drug' status.

A clinical study with the aragwadha decoction on patients showing excessive sexual drive had organized at Government Ayurveda Mental Hospital, Kottakkal, Kerala.

In addition to widowers and sexually parted masturbatives, male maniacs and mentally challenged males were monitored on aragwadha decoction. Important findings in this study on more than fifty patients were as follows:

Most of the patients proved excellent result, only 3-5 patients didn't respond well.

Uncontrolled masturbation became normal.

Mentally challenged children having the habit of masturbations in public showed cent percent result.

Partners of male maniacs vouched adequate sexual maturity after the treatment.

Mode of preparation of decoction, dosage and contraindications in the continues usage of Kashaya rasa are also assessed along with efficacy and convenience.

15 gm of clear aragwadha bark crushed and boiled in three glasses (600ml) of water for 5 minutes filtered and given in three-five divided dozes found most ideal.

The patients regain normal sexual capacity with the withdrawal of aragwadha kwath; no incidence of permanent damage of libido reported.

Aragwadha decoction is also beneficial in conditions like *Kusta, Sopha* and *Vrana* were coitus is contra indicated.

Constant use of *aragwadha* decoction has no adverse effects like abdominal distention, excessive thirst, constipation as seen in the over use of kashaya rasa*2.

150-200 ml of *aragwadha* decoction did not produce purgation. The fruit palp of aragwadha is used to induce purgation in children. Aragwadha is of Kashaya thiktha madhura rasa and induce mild laxation only.

Hence *aragwadha* has therapeutic action on different types of excessive sexual urge in various age groups and no marked contra indication.

The influence of aragwadha on the level of testosterones the male sex hormone has got to be assessed under modern parameters.

Though found effective in the treatment of skin diseases in women, its action over female sexual habits is not studied.

Aragwadha has the properties of *rakthasodhana, ropana* and *virechana*. The chemical constituent is 1-8 dihydroxy 3 carbonyl anthraquinone. Bark of root and stem contains aromatic oil and 12-14% tanin.

Root pulp contains mucilage and pectin.

Other therapeutic uses

Decoction of bark	- Skin diseases.
Fruit pulp	- Laxation
Along with chandana, triphala and Draksha	- Urinary disorders.

- * शुक्लाश्मरी तु मथ्तां जायते शुक्लधारणार
स्थनात च्यूतममुक्त हि मुष्कयोरन्तरे लीत:
औपयत्पूपसंग्रध्य शुक्लं तत्त शुक्लाश्मरी (A. H. Ni. 9116)
- * करोति शीलित से ति क्रिष्टंसाध्यमान हड्डजा
तृत कार्य पौरुषसंश्न स्त्रोतोरो प भलप्राशन (A. H. Su.10.21)

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TVAK PAREEKSHA (EXAMINATION OF SKIN)-V

* DR. E. SURENDRAN, MD (AY), PHD

Utsedham *(Ucchoonam, Udvrittam, Ucchraayam, Utsangam, Uttunditam, Udgatam, Utsannam, Abhyunnatam)* - Elevated skin. *"Uttunditam unnamita tvangmaamsam eeshat drishtamukham iva" (Vac.M.N.43.11), "Utsedhah ucchritah" (Yog.C.Su.18.8) and "Utsedham unnatatvam"(Chakra.C.Su.18.8). It is due to Karkataka visha and Loothaa visha.* **Ref**: *Adhimaamsa, Arbuda, Dadru, Dushta Vrana, Pakva Gulma, Kapaala Kushtha, Kaphaja Kushtha, Mandala Kushtha, Mashaka, Pundareeka Kushtha, Rishyajihvaa Kushtha, Sataghnee, Sopha, Paittika Visarpa and Viddha Vrana.*

Udardah - Urticaria with shivering. *"Seetapaaneeya samsparsaat seetakaale viseshatah, svayathuh sisiraartaanaam udardah kaphasambhavah" (Arun.Ah.N.2.22), "Udardah urobhispandanam" (Hem.Ah.N.2.22), "Udardah seetavepathuh" (Chandra.Ah.N.2.22) and "Udarda ukto vakshobhisyandanaih seetavepathuh seethaam busparsajah sopho raagakandooyuto paraih, ityaayurvedaprakaa soktah trividhopi udardah" (Hem.Ah.Ci.1.19).* ***Ref:*** *Madhurarasa atyupayoga and found in Kaphajvarah, Kaphaja Madaatyaya and Unmaada rishta.*

Karnikaa - Thorny skin. *"Karnikaa kotharoopah" (Arun.Ah.Su.29.73), "Kamalamadhyabeeja kosaakritih"(Dal.S.K.7.8) and "Karnikaakaarah kinchit utsannah damsavranah karnikasophah tatviddho maamsaankuro vaa"(Indu.Ah.U.37.5). It is due to keetavishavega, Teekshnavisha keetadashta and Mooshika dashta.*

Ref: *Aruna Mooshikadashta, Kapota Mooshikadashta, Mahaakapila Mooshikadashta, Mahaakrishna Mooshikadashta, Mahaasveta Mooshikadashta and Savisha damsa.*

Kotah - Wheels on the skin. *"Varatee dashta sankaasah kandoomaan lohitaasrakaphapittaat, kshanikotpaada vinaasah kotha iti nigadyate" (Chakra.C.Ci.3.108)* and *"Nirmukha pidakpraayah kothah (Yog.C.Ci.3.108).* It is due to *Lavanarasaatyupayoga, Ahitadivaasvapna, Chardinigraha, Vamana ayoga, Doosheevisha, Sookavrinda dashta, Mandavisha Keetadashta, Lootha laalaakrita visha, Triteeya vishavega, Savisha Abhyanga, Savisha Alankaara, Savisha Utsaadana, Savisha Varnaka, Savisha Vastradhaarana, Savisha Mootrasparsana, Savisha Pureeshasparsana and Savisha Savasparsana.*

Ref: *Adhoga Amlapitta, Pitta Jvara, Sannipaata Jvara, Baahya Krimi and Kushtha poorvaroopa.*

Kothah *(Avataranam, Prakvathanam)* - Putrifaction of the skin. *"Kothah kledasya atisayah avichinnatvam" (Yopg.C.Su.20.15), "Kothah pootheebhaavah" (Dal.S.U.22.9), "Prakvathitam satitam iva"(Vac.M.N.49.24) "Avataranam kothanam" (Tod.Ah.N.14.16) and "Baahya tvaksamhatih kothah"(Indu.As.Su.20.12).* It is due to *Pittaprakopa, Loothaa visha, Asaadhya Loothaa visha, Kapila Mooshika dashta and Mandali visha*

Ref: *Unmaargee Bhagandara, Paittika Kushtha, Udumbara Kushtha and Vaatarakta rishta.*

Grathitatvam - Nodular skin. *"Jaalakavat kinchit grathitah" (Arun.Ah.U.36.18). It is due to Savisha damsa.* **Ref**: *Kaphaja Charmakeela, Grathita and Vranagranthi.*

Paridhvamsi *(Ghrishtam rajah kiret) - Gives out fine dust if rubbed. "Paridhvamsi iti ghrishtam sat rajo vimunchati" (Dal.S.N.5.17).* **Ref:** *Sidhma Kushtha and Vaatika Svitra.*

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Paakah *- Suppuration. It is due to Pittadushta raktakopa, Dushtarakta stambhana, Kshaara atidagdha, Durdagdha, Vranopachaara mithyaayoga ie. Ajeernabhojana, Adhyasana, Gaadhabandhana and Abandhana of vrana, Maamsagatasalya, Peseegatasalya, Dantavisha, Jangamavisha, Savisha Praanidashta, Savisha Jalaukaapaata, Lootha visha, Nakha visha, Savisha abhyanga, Savisha mukhaalepa, Vishajushta bhooshana, Savisha mootrasparsana, Savisha pureeshasparsana, Savisha savasparsana and Vishadigdhaviddha.* **Ref:** *Dushtavrana, Paittika Granthi, Kaphaja Granthi, Rakta Garanthi, Jaalagardabha, Kaakana Kushtha, Kardama Visarpa, Paittika Kushtha, Kaphaja Masoorikaa, Tridoshaja Masoorikaa, Maamsastha Masoorikaa, Pundareeka Kushtha, Rishyajihvaa Kushtha, Vaatika Sopha, Paittika Sopha, Udumbara Kushtha, Paittika Vaatarakta, Gambheera Vaatarakta, Asaadhya Vaatarakta, Vidradhi, Vaata Vidradhi, Paittika Vidradhi, Kaphaja Vidradhi, Tridoshaja Vidradhi, Kshata Vidradhi, Rakta Vidradhi, Pitta Visarpa, Kaphaja Visarpa, Kshata Visarpa, Visarpa Kushtha, Paittika Visphota, Tridoshaja Visphota, Paittika Vrana, Kaphaja Vrana, Pittakapharaktaja Vrana and Vaatapittakapharaktaja Vrana.*

Pidakaa *(Pitikaa, Pidikaa)* - Papule. *"Pidakaa vranoshtha anu maamsaankurah" (Dal.S.Su.23 .18).* It is due to *Raktavriddhi, Maamsaavrita vaatakopa, Ahitadivaasvapna, Dushtaraktastambhana, Virechana ayoga, Nirooha ayoga, Sasalyavrana, Savisha jalapaana, Asaadhya doosheevisha, Doosheevisha Keetadashta, Makshikaadashta, Mandavisha Keetadashta, Lootha Visha, Aalaa Lootha visha, Kapila Lootha visha, Peetikaa Lootha visha, Praanahara Lootha visha, Rakta Lootha visha, Sveta Lootha visha, Asaadhya Lootha visha, Nakhaavakrishta visha, Vishadushta abhyanga, Vishadushta alankaara, Vishadushta snaana, Vishadushta udsaadana, Vishadushta varnaka, Savisha Mootrasparsana, Savisha Pureeshasparsana and Savisha Savasparsana.*

Ref: *Ajagallikaa, Alajee, Oordhvaga Amlapitta, Atisthaulya, Charmadala, Dadrukushtha, Dushta Vrana, Gandamaalaa, Gandhanaamaa, Gardabhikaa, Irivellikaa, Jaalenee, Kapha Jvara, Rakta Jvara, Kacchoo, Kaakana Kushtha, Kardama Visarpa, Baahya Krimi, Maamsagata Kushtha, Mashaka, Masoorikaa, Padmakantaka, Paamaa Kushtha, Prameha upadrava, Prameha rishta, Punaraavartaka Jvara, Putrinee, Raajikaa, Rakasa Kushtha, Raktapitta poorvaroopa, Rishyajihvaa Kushtha, Romaantikaa, Saraavikaa, Sataaru, Tilakaalaka, Vaatarakta, Vicharchikaa, Vidaarikaa, Vaata Vidradhi, Pitta Vidradhi, Vinataa, Visarpa Kushtha, Vivritaa and Yavaprakhyaa.*

Bindubhih aachayah - Multiple spots on skin. *"Binduh bindvaakaarah tvak vikritih" (Chakra. C.Ci.23.114).* It is due to *Aamaasayagata visha.*

Budbudatulyamaamsam - Skin covered with bubble like flesh. **Ref:** *Sasalya Vrana.*

Mandalam *(Parimandalam)* - Circular patch on skin. *"Mandalam vartulakamalaadeeni" (Chandra.Ah.U.31.32), "Mandalaakaarah sophaviseshah" (Gang.C.Ci.3.108) and Parimandalaani paripoornamandalaani vartulam" (Yog.C.N.5.7-3).* It is due to *Raktaavrita vaatakopa, Sveda atiyoga, Ayoga vyaapat, Dooshee visha, Aakhu doosheevisha, Teekshna Keetadashta, Lootha visha, Mooshika visha, Aruna Mooshikavisha, Kapota Mooshikavisha, Mahaakapila Mooshikavisha, Mahaakrishna Mooshikavisha, Mahaasveta Mooshikavisha, Savisha damsa and Triteeya vishavega.* **Ref:** *Oordhvaga Amlapitta, Dadru Kushtha, Gardabhikaa, Jatumani, Sannipaata Jvara, Kotha, Kaphaja Kushtha, Laanchanam, Mandala Kushtha, Neelikaa, Nyaccha, Padmineekantaka, Rishyajihvaa Kushtha, Vaatika Svitra, Tilakaalaka, Udarda, Utkota, Vaatarakta poorvaroopa and Vyanga.*

Matsyasakalasannibham - Scaly skin. *"Matsyatvakmandala sadrisam" (Arun.Ah.N.14. 20).* It is seen in *Ekakushtha.*

Maamsaankurah - Fleshy thorn on skin. It is found in *Charmakeela.*

Next issue

STANDARDISATION OF *RASAOUSHADHIS* –NEED OF THE HOUR

* Dr. SRINIBASH SAHOO, ** Dr.B.CHANDRASEKHAR RAO, ***Dr.D.SUDHAKAR

ABSTRACT

Ayurveda has given importance to drugs for the treatment of diseases by considering it as second pada in chikitsa chatuspada. Till samhita period (i.e.up to 5-6th cent.A.D) use of Minerals & Metals was very limited. After that a kind of revolution occurred when Metals & Minerals were added for preparation of Ayurvedic Medicines.

Now a days because of the increasing health consciousness, development of modern technologies & commercialization of Ayurvedic Medicines by various manufacturing companies the Standardization of Rasaousadhis is an hourly need. The Standardization can be made at 3 basic steps. These are (i) Standardization of Raw drugs (ii) Standardization of Process (iii) Standardization of end product. So proper analysis and research with the help of modern technologies and basic knowledge of Ayurveda will definitely help to the development of Rasashastra to heal Mankind.

INTRODUCTION

In Ayurveda, for the treatment of diseases four factors are required which are called as *"Chikitsa Chatuspada"*. While describing this *Chatuspada* Ayurveda has given more importance to *Dravya* by considering it as 2nd *pada (A.H.Su.1/27)*. Again Ayurveda has also given importance to *Dravya* by saying it is like a sword, when used properly can act like nectar and if used without integrity and intelligence acts like poison.

In the earliest days of Ayurveda, *Vaidyas* mainly used the herbal drugs. Up to *Samhita* period the use of minerals and metals was very limited. But later (after 6th cent. A.D) a kind of revolution took place when metals and minerals were added to Ayurvedic Pharmacopoeia to a greater extent.

Till 18-19th Cent. Ayurvedic Physicians used to prepare medicines for their patients and sales. But in 20th Cent. the trend has changed drastically. As Ayurveda developed incorporating different branches of science and technology, the Physicians were no more involved in the process of preparation of these medicines and the commercial production units i.e. Manufacturers of drugs hijacked the whole concept. So the standardisation of drugs (both herbals and minerals) is the need of the hour.

STANDARDIZATION: The drugs, which are used in Ayurvedic Medicines broadly classified under three headings:

Herbal, Herbo-Mineral, Mineral in compare to herbal drugs.

Though all the drugs need standardisation, the herbo-mineral and mineral drugs required more attention for the standardisation when compared to herbal drugs.

Stages of standardisation

The drugs need standardisation at each and every step for which it classified under three stages:

1. Standardisation of Raw-drugs
2. Standardisation of the Process
3. Standardisation of End Product

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1.Standardisation of raw-drugs

Now a days many artificial / synthetic and substitute materials are frequently available in market. Damaged, old stock, substandard raw materials are also available. For Standardisation of raw drugs the following steps should be considered.

a. Proper procurement
b. Proper Identification and Authentication.
c. Documentation

1(a) **Proper procurement :** Especially for herbal drugs Ayurveda had given more importance to collect the drugs in proper seasons, proper *nakshatra*, proper parts and from proper places etc. But in case of *Rasaousadhis* procure of minerals from proper places are more important. For example *Sphatika* obtained from *Saurastra*(Gujrat) is having more qualities than obtained from other parts of India.

1(b) **Proper Identification / Authentication:** The drug which obtained for the preparation of medicines should be identified properly. Now a days it is easy and important to identify and document that minerals chemically with its other components. For example- (i) *Hingula* having four varieties, which contains different percentages of mercury. Hence the preparation of medicine, *Hingula* containing more percentages of mercury should be taken and it should be properly documented. (ii) The qualities of good *Abhraka* according to Ayurveda are unctuous, has broad & easily separable sheets, black color and heavy which is very difficult to identify but it can be easily identify by its chemical constitutions.

The purity of the metals and minerals shall be assessed by the tests like loss on drying, acid soluble, elemental assay etc.

1(c) **Documentation:** After doing all the chemical investigations the values of that drug should be documented properly for the knowledge of others by which other persons / pharmacies can take the same drug for the preparation of medicines which will maintain the uniformity.

2. ***Standardisation of the process:*** For preparation of *Rasaousadhis* this step is very much important. For example - before giving *putas*, the *banopalas* should be standardised by its weight, which should be universally accepted. Then during *putas* the temperature should be standardised because now a days no pharmacy is using *banopalas*. They are using the muffle furnaces / electric furnaces. What the no. of *banopalas* mentioned for gajaputa, mahaputa etc. that no.of *banopalas* should be used and the temperature should be standardised. Then also the no. of *putas* mentioned for preparation of *bhasmas* that much *putas* to be given for standardisation. Similarly for other preparations the standardisation should be made with regards to vessels, liquid media, no. of *bhavanas*, the speed of grinding, pressure, friction etc. Using of modern equipments and equivalent process is also a question. Whether these are having same effects as classical methods should be evaluated.

   So the whole range of process should be standardised to achieve the uniformity and consistent results.

3. *Standardisation of end product:* This is the important area in preparation of *Rasaousadhis* where much stress has given. Though the raw drugs and preparations are standardised still then each *yogas* again need standardisation in order to ascertain and maintain quality.

For these Ayurveda has given some guidelines. For example-Regarding *Bhasma Pariksha* it should be *Rekhapurna, Varitara, Nischandratwa, Niruttha, Apunarbhava* etc. and different *bhasmas* have different colors. Regarding *Parpati* and *Thailapaka,*

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CONCEPT OF INTRA CELLULAR MESSAGE TRANSMISSION IN AYURVEDA

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ABSTRACT

In Ayurveda concept of knowledge development has been described in short. When an object combines with Indriya, Manas and Atma in series, then only the knowledge of object is developed. In Charaka Samhita Sutrasthana, it is described vividly in the context of Indriya panchpanchaka. There are 5 Indriyarthas, 5 Indriyaadhisthanas, 5 Indriyadravyas, 5 Indriyas and 5 Indriyabuddhis. It means that there are 5 types of knowledge which are developed, due to permutation and combinations of Indriya panchpanchaka.

In modern science above concept has been described as intra cellular message transmission. The result of any stimulus involves sequential changes occurring inside the cell in which the stimulus is received by receptor followed by the generation of the secondary products and finally the final product which is governed by the rate limiting reaction. The mechanism of above process i.e the genesis of an internal stimulus, its propagation and processing through different steps can be well understood by intracellular message transmission.

In Ayurveda these sequential changes have been described as Indriya panchpanchaka, because in the entire activity, five components of Indriya Panchpanchaka are participating for transmission of external impulses inside the cell. Further in the full paper different steps and mechanisms are described.

***Keywords:**-Indriya, Manas, Atma, Indriya panchpanchaka, Indriyarthas Indriyaadhisthanas, Indriyadravyas, Indriyabuddhi.*

INTRODUCTION

Generally when we read different concepts of Ayurveda we implicate them only on the gross body. But if we overall think and apply it on a single cell (unicellular organism), then the complexity resolves and the concept becomes clear.

Here an attempt is made to implicate the concept of *Indriya panchpanchaka* on to a single cell as intra cellular message transmission.

Development of knowledge from a stimulus occurs in a very co-ordinated manner, which is responsible for specific intra cellular function."[1]

Indriyartha
⇩
Indriyadhisthana
⇩
Indriyadravya
⇩
Indriya
⇩
Manas & Atman
⇩
Buddhi
⇩
Karma

First *Indriyartha* interacts with *Indriyadhisthana* and produces *Indriyadravya. Indriyadravya* initiates *Indriya*, which with the help of *Manas* and *Atman* produces *Indriyabuddhi. Indriyabuddhi* is responsible for Intracellular effect.

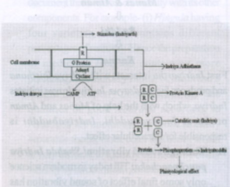
1. **Through sound vibration/ *Shabda Indriya panchpanchaka:*** Till today in modern science only some final effect of sound vibration has been described but the complete mode of action is not so clear, that how receptor receives a stimulus and produces secondary messenger which is finally responsible for particular effect. This is not described in modern science in respect of sound vibration but Ayurveda has fully described all the steps of its transmission and action by *Shabda Indriya panchpanchaka.*

2. **Through extra cellular receptor/*Sparsh Indriya panchpanchaka***

   In this activity, stimulus binds to the surface receptor and propagates the impulse for the further activities in the cell. These extra cellular receptors are producing multiple functions by their different secondary messenger as per below:-

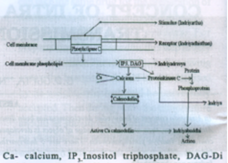
   - **I. Through CAMP**
   - **II. Through calcium Phosphatidyl inositol system**
   - **III. Receptor coupled directly to effected molecules**
     - (a) Through catalytic receptor
     - (b) Through Ion channel

I. Through CAMP



R-Recepter **CAMP**-Cyclic Aadenosyl Mmono phaspate, **ATP**- adenosyl triphas pate, R-regulatory unit, C-catalytic unit. Example- ACTH, ADH, FSH, HCG, LPH, LH, MSH and TSH are acting as *Sparsh Indriya panchapanchak.*

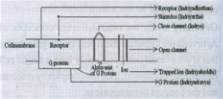
II. Through calcium Phosphatidyl inositol



Ca- calcium, IP_3 Inositol triphosphate, DAG-Di acylglycerate. Example-Cholecystokinin, Gastrin, Substance P, Vasopressin and TRH are acting as Sparsh Indriya panchapanchak

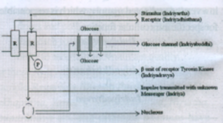
III. Receptor coupled directly to effected molecules

(a) Through Ion channel



Example- Glutamate and GABA are acting as *Sparsh Indriya panchapanchak.*

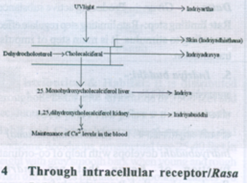
(b) Through catalytic receptor


Stimulus (Indriyartha)
Receptor (Indriyadhisthana)
R
R
Glucose
Glucose channel (Indriyabuddhi)
Glucose
P
β unit of receptor Tyrosin Kinase (Indriyadravya)
Impulse transmitted with unknown Messenger (Indriya)
Nucleous

Example- Insulin is acting as Sparsh Indriya panchapanchak

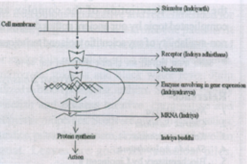
3. **Through light stimulus/ *Rupa Indriya panchapanchak***

   In this activity light is absorbed on the cell surface and through intracellular mechanism, it synthesis 1, 25 dihydrocholecalciferol. In the following diagram every step of vitamin D synthesis has been correlated with the concept of *Rupa Indriya panchpanchaka.*


UV light
Indriyartha
Skin (Indriyadhisthana)
Dehydrocholesterol
Cholecalciferol
Indriyadravya
25 Monohydroxycholecalciferol liver
Indriya
1,25,dihydroxycholecalciferol kidney
Indriyabuddhi
Maintenance of Ca2+ levels in the blood

4 **Through intracellular receptor/*Rasa Indriya panchapanchak***

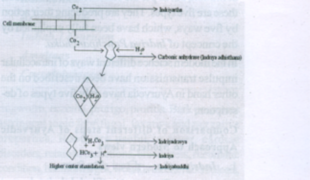
For the perception of Rasa (taste) any substance it should be resolved to cross the cell membrane. Similarly in this intracellular activity, stimulus gets resolves and goes inside by crossing cell membrane and binds to its intercellular receptor, then the propagation of impulse occurs for the result as shown on the following diagram.



Example: - Steroid hormones are acting as *Rasa Indriya panchpanchaka*

5 **Through gases/ *Gandha Indriya panchpanchaka***

In this activity gaseous stimulus crosses the cell membrane by diffusion and binds to its receptor, which propagates the impulse for the action. This has been explained in the following diagram



Example: - Transport of gases is occurring through *Rasa Indriya panchapanchak.*

Comparative study of different component of Impulse Transmission

Lebel 1

अत्मानं रथिनं विद्धि शरीरं रथमेवतु ।
वुध्दिं तु सारथिं विद्धि मनः प्रगहमेव चा ।
इन्द्रियाणि ह्यानाह विषयास्तेषु गोचरन् ।
आत्मेन्द्रियमनोयुक्तं भोक्तेत्याहुर्मनीषिणः ।।

(Kathopnisada)

Rathi - Atma - Bio Energis molecule
Ratha - Indriyadisthana - Receptor
Sarathi - Buddhi - Active substance Responsible for action.
Lagama - Manas - Active (Phosphate) group of Bio energetic molecule
Horse - Indriya - Rate limiting step.
Marga - Indriyartha - Stimulus

Region for different type of Impulse Transmission

करणान्यान्याता द्रष्टा कर्तुः कर्ता स एवं तु ।
कर्ता हि करणैयुक्तः कारणं सर्व कर्मणम् ।।

(Charaka Samhita Sharir)

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**** Professor H.O.D. of Kayachikitsa IMS BHU

Subject is only one and that is *Atma* (Bioenergy). It produces things in a proper manner, but the different results are produced as per the variation in stimulus and the whole process.

Now science has explored multiple dimensions of intercellu;ar activity as per the stimulus. All the different mechanisms can be understood by the above definition, but as per the classification of stimulus, these are five types. They are producing their action by five ways, which have been fully explained by the concept of *Indriya Panchpanchaka*.

In the modern science different ways of intracellular impulse transmission have been described on the other hand in Ayurveda have only five types of description.

Comparison of different steps of Ayurvedic Approach to Modern views

1. ***Indriyartha:-*** इन्द्रियार्थ इन्द्रिय विषयाः ।

   (Shabdakalpadruma)

   When any agent is percieved by *Indriya* that *indriya* perceiving agent is called *Indriyarth*. **Stimulus** - Influence that produces tropical reaction in a receptor.

2. **Indriyadhisthana:-** अधिष्ठानि अधिकृत्य तिष्ठान्तीति अधिष्ठाति । *(Shabdakalpadruma)*

   Indriyadhisthana is that where *Indriya* are situated and were they receive their specific stimulus and produced their action.

Receptor- A molecular structure within a cell or on the surface of cell is charecterised by

1. Selective binding of specific substance.
2. Specific physiologica effect that accompanies the binding.

3. ***Indriya dravya:-*** इन्द्रियाणां प्रधान्येनारमभकं द्रव्यमिन्द्रियद्रव्यम् । *(Shabdakalpadruma)*

   It is mainly responsible for transmission of impulse upto *Indriya*.

Intracellular messenger:- This messenger is responsible for transferring the message from extra cellular compartment to intracellular.

Example-Enzyme and channels.

4. *Indriya:* इनद्रियमिन्द्रकंगामिन्द्रस्प्ष्टमिन्द्रजुष्टमिन्द्रदत्तमितय ।

   (Shabdakalpadruma)

Linga	*- Prana*	- Main step of impulse transmission
Drashta	*- Karta*	- Rate limiting step
Srashta	*- Sarjan*	- Activator and inactivator of transmission.
Jushta	*- Jointer*	- Make relation between stimulus and action.
Datta	*- Giver*	- Producing active substance.

Rate limiting step:- Rate limiting step regulate effect according to stimulus. It is main step of impulse transmission.

5. ***Indriya buddhi:-***

असाधारणेन कारणेनेन्द्रियेण व्यपदिष्ट बुद्धय इन्द्रियबुद्धयः ।
सन्निकर्ष सम्बन्ध : स च क्वाचित् संयोग क्वाचित् समवाय :
क्षणिकाति आशुतरविनाशिन्य : । *(Shabdakalpadruma)*

Indriyabuddhi develops with help of co-ordinate function of *Karan* that are *Indriya Panchpanchpanchak*. It persists only for a moment and easily destroys itself *(Swabhaoparam vada)*.

Active substance producing action- It is the result of complete and co-ordinate function of all intracellular component. It produces action for a little moment and inactivated with the help of intracellular enzymatic activity.

Conclusion- This is a simple example of how the concept of knowledge is evolved. It is evident from the above discussion, of the high quality analysis and the minute description of the complex and complicated topic by our ancient author despite the non-availability of any scientific tools and techniques.

*[1] आत्मा मनसा संयुज्यते मन इन्द्रियेण इन्द्रियमर्थेन ततो ज्ञानम

(Nyaya Bhashya)

Reference-

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2. *Charak Samhita*
3. *Kathopanishada*
4. *Shabda kalpadruma*
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ARAGWADHAM

(Cassia fistula. Linn)

* BABY JOSEPH AND SOPHY PAUL

Malayalam	:	***Kanikonna***
Sanskrit	:	***Aragwadham***
English	:	***Indian Laburnum***
Hindi	:	***Amaltaas***
Family	:	***Caesalpiniaceae***

Distribution & Habitat: It is distributed throughout India upto an altitude of 3500 feet and deciduous forests.

Habit and General features: A medium sized handsome deciduous, ornamental tree 25-40 feet in height with grey smooth bark when young and rough when old. Leaves pinnately compound, leaflets 3-8 pairs, ovate bright green. Flowers bright yellow in axillary by pendulous racemes. Fruits pods cylindrical, pendulous smooth dark brown or black 2 feet length. Seeds broad ovate in sweetish yellow pulp.

Part used: Bark, leaves, flower and fruitpulp.

Actions and Uses : The bark shows antidysenteric properties and possesses tonic, very effective in skin diseases. The powder or decoction of bark administered in leprosy, jaundice, syphilis and heart diseases.

The fruit pulp is a purgative and recommended for children, pregnant women and diabetic patients. It also given disorders of liver as a tonic externally used for snake bite, scorpion sting and antidysenteric. Antipyretic malaria and black water fever. Pulp utilized in blood poisoning, anthrax. Seeds are slightly sweetish and possess laxative, carminative and antipyretic properties. Seeds are given in constipation, jaundice, piles, rheumatism, skin diseases and swollen throat. Leaves are good for jaundice, piles, rheumatism, ulcers and also externally skin eruptions, ringworm, eczema, prurigo, pruritis. Bark possesses astringent tonic febrifugal, laxative and purgative properties. Roots are useful in fever, cardiac disorders, retained excretions, biliousness, rheumatic condition, haemorrhages, wounds ulcers, tuberculosis, various skin diseases and leprosy. Flowers possess astringent, purgative, febrifugal, antibiliousness and stomach troubles.

Ayurvedic Properties:

Rasa	-	*Madhura*
Guna	-	*Guru*
Virya	-	*Sheeta*
Vipaka	-	*Madhura*
Doshagnatha	-	*Vathapittasamaka,* *Kaphapithasamaka*

Important Formulations: *Aragwadam kashayam, Maharasnadi kashayam, Raasnasapthakam kashayam, Aragwadharishtam*

Chemical constituents: Fistucacidine, catechin, kaempferal, rhein and its glucoside sennosides A & B, lupeol, fistulin, arginine, leucine, clitorin, procyanidin.

Therapeutic evaluation : The plant is used in cancer, epilepsy pimples, burns, syphilis, diarrhoea (Jain 1970), dysentery, constipation (Singh & Maheswari 1985), skin diseases, intestinal parasite, heart diseases, jaundice (Srivastava 1986), laxative, cathartic, astringent, tonic (Chandra 1989), for throat, respiratory, liver and eye diseases, to strengthen liver (Negi 1992) stomach pain , fever (Pal 1999) . Flowers are used in fungal infection (Raj & Patel 1978) dry cough & bronchitis (Kattimani 2000). Fruits are used in rheumatism (Kapoor & Kapoor 1980) in swellings due to cold (Singh and Pandey 1980) constipation (Chandra and Pandey 1984) diabetes (Alam 1990) in asthma (Rao and Sreeramalu) as purgative (Raj and Patel 1978) skin diseases (Mishra and Verma 1995) , Pulp fruit is used in high fever and pneumonia (Singh and Ali 1994).Fruits and seeds are used in liver diseases (Jain 2003)Bark of the pod is used in easy delivery (Singh 1995) arthritis (Shrama 1988) in blindness (Joshii 1980)body heat and cold (Kumar and Jain 1998)Root bark, seeds and leaves are laxative (Kapoor and Kapoor 1980)

Cultivation : It can be cultivated through direct sowing or transplanting the nursery raised seedlings or stump planting. Stump planting from 1-2 year old, nursery raised seedlings is considered to be the best. The seeds should be sown in March or April, and regularly watered, germination generally starts early during the rains. The seeds take 6-52 day to germinate, The seedlings are more sensitive to weeds than to drought. So weeding is more important than watering.

PHARMACOGNOSY

Materials & Methods: Plant materials were collected from different parts of Kerala and Nagarjuna Herbal Garden. For Macroscopical characters Stereomicroscope is used and for microscopical studies, the compound microscope. For physical constants rotary shaker, muffle furnace, UV – cabinet, moisture balance were used.

PHYSICAL CONSTANTS: Total ash, acid insoluble ash, water soluble extractive, alcohol soluble extractive, thin layer chromatography tests were done to asses physical constants.

RESULTS AND DISCUSSIONS

Macroscopic features:

Bark: Flat or curved thick pieces, outer surface smooth to rough with warty patches, greenish grey to red, inner surface rough, reddish with parallel striations, fracture laminate odour sweet and characteristic, taste astringent.

Microscopic features: Stem bark shows 5 to 8 layers of cork, composed of square to rectangular cells, cortex many layered, outer consisting of rectangular cells, groups of stone cells, oval to elongated arranged tangentially forming a continuous or discontinuous band, fibres present in groups, phloem shows sieve elements, traversed by uni to triseriate meudllary rays of radially elongated oval cells, bast fibres moderatly thick walled, abundant isolated calcium oxalate prism crystals present, starch grains simple, but a few with 2 or 3 components in phloem parenchyma.

PHYSICAL CONSTANT VALUES

No	PARAMETERS	VALUES
1	Foreign matter	Max 2%
2	Total ash	Max 13%
3	Acid insoluble ash	Max 1%
4	Alcohol soluble extractive	MIN 25%
5	Water soluble extractive	MIN 18%

THIN LAYER CHROMATOGRAPHY

Powder	-	5 gm
Extract	-	Diethyl ether
Solvent System	-	Petroleum ether:Ethyl acetate: Formic acid – 15:2.5:0.2

Rf Values	Colour in UV rays
0.19	Pink
0.28	Pink
0.54	Pink
0.54	Pink
0.72	Pink

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Psychosomatic... From P. No. 6

dissuades the malfunctioning of somatic cells through transfer of appropriate herbal creative energy in curing diseases.

From the point of view of such a close relationship between the plant life and the human life, the ancient Indian seers had proposed a vegetarian diet. A non-vegetarian diet was discouraged because this will generate the creative energy of animals and not the proactive energy necessary for man. Such a diet is considered as *'tâmasic'* one and it creates psychological disorders. The advantages of vegetarian food are :-

Sensory impressions remain calm. Pulse will be in compatibility with the universal vibration. Sexual activity may be low. One who intakes vegetarian food can fine tune his senses, speak in a calm and peaceful manner and can work selflessly. Very rarely he becomes angry. Such over- expressions of body and mind will be restricted to its utmost extent. Fear, desire, depression and such mental states will be very rare in him. His love is of universal nature. His memory will be great and he has strong will power. He is truthful and honest with high creativity skills and can work in consonance with the laws of Nature. As against this, the intake of non-vegetarian food will lead to the opposite characters prescribed above and that may end in incurable psychical and neural disorders. Such food increases animal fire in the body - the animal tendencies. It decreases the flow of life energy but increases anger, fear, and negative emotions. Another factor of relevance in this context is that human beings exist and survive based on food *(anna)*. The word *'annam'* has three derivations - one refers to the immortal in its infinite form (breathing without air); *'ana'* - is life breathing with air (plants) in its finite form; and *'anna'* (life breathing through the food- nourished body - the living beings (pra+ana = prânah). This also indicates the vital link between man and plant life.

The present effort of highlighting the true discrimination of the good from the evil and the sensory stimulations from the real self reveals the necessitated attention of man regarding his birth and its meaning. The Upanishadic seers were much careful to treat the body and the mind with the available herbs as well as with the development of the inner strength which is the great blessing rendered solely to man. The identification of our real nature as the self of the universe brings the excellence of human birth that is exceptionally experienced in the state of *Jîvanmukti*. The bonds created by material aspects will subject to negation in this context. In the same way, the terrific bonds in the form of diseases that disturb man due to the influence of various empirical factors are treated in the right manner in Ayurveda with a consensus of Nature and man where these two are regarded as equally important. The products of the Nature are to be survived with the ingredients of the Nature itself- is the central theme of Ayurveda. However, this insightful science serves the right purpose of smooth living endowed with the absence of bonds in the form of diseases whereas the concept of *Jîvanmukti* in *Advaita Vedânta* heralds the meaning of human birth with the help of one's inner improvement. The two approaches with the same vision and mission- this is the grand conclusion of this discussion on one material science and another spiritual science.

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Concept of *Vyadhikshamatva*... From P. No. 10

Vyadhikshama sareera

- *Samamamsa, Samasamhanana (Pramanayukta Shareera)*
- *Drudaindriya*
- *Niroga*
- *Kshutpipasa sahanayukta*
- *Sheeta vyayama sahishnuta*
- *Samagniyukta (cha.su.21/18)*

Avyadhikshama sareera

- *Atisthoola*
- *Atikrusha*
- *Anavishtamamsa Shonita Asthi*
- *Durbala*
- *Asatmya aharasevi*
- *Alpa aharasevi*
- *Alpa satwa (Cha.su.28/7)*

Tips to boost up *vyadhikshamatva*

1) Proper immunization at proper time
2) *Swarna prashana vidhi*
3) Proper *Swasthavrittha paripalana* like *dinacharya, ritucharya* etc.
4) *Shadrasayukta aharaprayoga*
5) *Nitya ghrita ksheera abhyasa*
6) Following *Achara rasayana*
7) *Rasayana yoga prayoga*
8) Adopting *shodhana* according to ritus in *swastha purusha.*

***Vyadhikshamatva* enhancing drugs**

(a) Bala, *(b) Ashwagandha,* *(c) Amalaki*
(d) Arjuna *(e) Shilajathu* *(f) Pippali*
(g) Guduchi *(h) Shathavari*
(i) Jeevaniyagana dravyas etc.

CONCLUSION

- Among various factors contributing the *Vyadhikshamatva, ojus* plays prime role. The other factors, which influence *Vyadhikshamatva*, are *agni, prakriti, satva, satmya,bala and kapha.*
- Some persons get rid of the diseases even after *nidana sevana* is because of good *Vyadhikshamatva.*
- *Rasayana yogas* are more helpful in *avyadhikshama sareera* and these *Rasayanas* acts as immunomodulators.
- To maintain good health and to prevent many diseases specific immunization in proper time is necessary.

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*2. *VyadhibalavirodhitvamVyadhi utpadhaka pratibandha kathwamiti yavat (cha.su.28/7 chakrapani)*

*3. *Jeeva shonita rupa ojus Raktam jeeva iti*

*4. *Prakrustasthu balam sleshma, Sleshma balavanto, Sleshma prakritishu balavan*

*5 *Karmasadhana Shakti bala*

*6 *Nacha sarvani shareerani Vyadhikshamatva samarthani bhavanti* (ch.su.28/7)

*7. *Atra abhyantar prano balam taccha ojonitam* (su.su.13/7 Dalhana)

*8. *Trividam balamiti sahajam kalajam yuktikrutam cha* (CH.SU.11/36)

*9. *Sahajam yat shareera sathvayho* (cha.su.11)

*10. *Kalakrutham rutu vibhagam vaya krutam cha (Cha. Su. 11/36)*

*11. *Yukthikrutam punarasthada ahara chesta yogajan* (cha.su.11/36)

*12. *Ehakhalu nidana dosha dushya visheshebhyoVikara vighata bhavaabhava prativishesha bhavanti* (cha.ni.4/4)

*13. *Guruvyadhita ekha sathva bala shareera sampadupetvaa laghu vyadhita eva drushayte* (cha.vi.7/3)

*14. *Laghu vyadhitoaparah satvadinamadha matvad guruvyadhita eva drushayte* (cha.vi.7/3)

Vagbhata samhita – Hemadri, Essentials of Ayurveda – V.V.S. Shastri, Roga vijnana – Ranade.

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Standardisation of Rasou... From P. No. 22

it should be *mridu, madhya* and *kharapaka.* Regarding *Kupipakwa Rasayana*- different colours are mentioned (ex. *Swarnabanga* should be Golden in color).

These tests are mainly based on naked eye observations that require a long experience and practice. Though these tests are perfect and time tested, now a days the modern technology and science have sophisticated methods to ascertain the standards of the medicines. These methods are specifically Spectrophotometry, Electron microscopic study, Particle size analysis, TLC, HPTLC (High proficiency thin layer chromatography), I-R Spectrophotometer, U-V Spectro photometer, P.H Meter, Tab. Dissolution test apparatus, Tab. Disintegration test apparatus, Tab. hardness test apparatus etc.

By the help of above modern instruments the analytical study of a *Rasaousadhis* should be done at each steps and also final products to analysing the following things i.e.- Ash value, PH value, Foreign organic / inorganic matters, etc.

As the modern medical science does not recommend the therapeutic use of metals and mineral preparations which it consider as toxic materials, it is the need of the hour to discourage the claim on Ayurvedic herbo-mineral preparations without safety and efficacy evaluation on clinical and experimental basis. Through the procedures like *bhasmikarana. shodhana, jarana, marana* etc. the metals and minerals will be converted in to micro molecules which are absorbable and having least or non-toxic effect to the body.

CONCLUSION

As the great scholar in the field of *Rasashastra,* Nagarjuna Acharya mentioned *"Sidhe Rase Karisyami Nirdaridram Idam Jagat"* it comprises two meanings i.e. (i) by the modification of *Rasa (Parad)* to Gold, the poverty of the people will come down (ii) by the various preparations from *Rasa* (*Rasa* means not only *Parad* but also *Paradadi* other *Dhatus*) the diseases of the people can be cured (Here *Daridrata* can be compared with the diseases of the body). So this quotation shows the efficacy of the *Rasaousadhis.* But it will be true only when the genuine drugs (proper drugs) are procured, proper procedures are followed for the preparation of medicines, proper standardisation are maintained, proper analysis and proper research are done by the help of modern technologies. If such methods are followed then sure it will help the development of *Rasashastra* as well as Global Recognisation of Ayurveda.

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Nighttime noise - The best high-tech and traditional remedies

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Lose a few pounds: The heavier you get, the more suction is needed to inhale, which causes swelling and vibration in the back of the throat, uvula, and palate. Alcohol also relaxes muscles in these areas, making snoring even worse.

Lifestyle Rx: If you're overweight, lose 10% of your body weight. Avoid alcohol within 3 hours of bedtime. Sleep on your left side, which keeps your tongue from blocking the airway.

Get M.A.D. "Mandibular advancement devices, aka oral appliances, are shaped like nighttime mouth guards. Studies show these devices are 90% effective at reducing snore noise—they keep the lower jaw pushed out, widening the airway and reducing noisy turbulence."

(Appliance Rx: Get fitted by your dentist; find one at aadsm.org. Appliances cost $500 to $1,000 and last for 3 to 5 years (or longer).

Try a new surgery: The Pillar Procedure, in which thin, rod-shaped implants are placed in the soft palate, is FDA (USA)-recognized as a first-line snoring treatment. The rods support the palate and limit its vibration. It's done in a doctor's office—results are great, with few side effects.

Medical Rx: The procedure takes 20 to 30 minutes and uses local anesthesia. It costs $1,500 to $2,000. Full results could take up to 3 months.

6 Ways to Ease a Food Addiction

Smaller plates = smaller portions.

People with food addiction often overeat because the signals that traditionally tell the body to stop eating don't sound off. You can actually retrain your brain to feel full on less food. Begin by using smaller plates and bowls, which will force you to dish out smaller portions.

Lower the "sweet" volume.

If sugar is your weakness, start by removing it from areas of your diet where you're less likely to notice. After a while, your taste buds will become more sensitive to sugar, making the foods you really want to avoid—cookies, cakes, candy—a little less appealing.

Keep your hunger in check.

People with food addiction often get tripped up by resisting food to the point of being ravenous, then overeating as a result. Rate your hunger on a scale of zero to ten, zero being starving and ten being overstuffed, then try to stay somewhere in the middle.

Work it out by working out.

Exercise can actually change the body's biochemistry, helping to make up for some of the physiological imbalances that can lead to food addiction. Also, time spent working out is time that you won't be eating.

Find other ways of coping.

Just as some addicts turn to drugs and/or alcohol to help them deal with pain and anxiety, food addicts turn to food. Instead of running away from those feelings, consider talking to a therapist or finding support from a food addiction group like Overeaters Anonymous.

Don't return to the scene of the crime.

Drug addicts get into trouble when they go back into the neighborhood where they used to buy drugs. Similarly, returning to the same patterns can trip you up. So shake up your routine.

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