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āryavaidyan

सतताध्ययनं, वादः परतन्त्रावलोकनम् ।
तद्विद्याचार्यसेवा च बुद्धिमेधाकरो गणः ॥

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Aryavaidyan Vol. 8 No. 4 May 1995 Pages 173 - 184

FROM THE PAGES OF VAGBHATA --XXXII

N.V.K. Warrier

श्रावणे कार्तिके चैत्रे मासि साधारणे क्रमात् ॥ ३३ ॥
ग्रीष्मवर्षाहिमचितान् वाय्वादीनाशु निर्हरेत् ।

(Sravane kartike caitre masi sadharane kramat ‖ 33 ‖
Grismavarsahimacitan vayvadinasu nirharet | *)*

"Vayu and others that accumulate during summer, rainy season and cold season respectively are to be expelled in the months of Sravana (July-August) Karthika (Nov-Dec) and Chaithra (March-April) in that order normally."

Vata accumulates in summer (Greeshma), Pitta in the rainy season (Varsha) and Kapha in the cold season (Sisira). If the Dosas are expelled in their accumulated stage itself then there are no chances of their provocation. Vata gets provoked in Varsha, Pitta in Sarat and Kapha in Vasantha. Therefore, the suggestion is to expel them before they are provoked. Varsha covers two months of Sravana and Bhadrapada. In Sravana rainy season starts. So there is no extremity of season. Expel the Vata by Vasthi, medicines, diets and activities that subdue Vata.

The pitta accumulates in rainy season and then gets provoked in autumn i.e. Karthika and Margasirsha months. Sarat Rtu (autumn) begins in the month of Karthika. So expelling Pitta is to be done in the beginning of Karthika, when autumn has not advanced. Expel Pitta by purgation, blood-letting, medicines, diet and regimen that conquer Pitta as by the intake of bitter ghee etc. Kapha gets accumulated by the end of the cold season. But it is not provoked since its solid concrete form is maintained due to cold. But it gets provoked in spring, when heat increases. So expel Kapha in the beginning of spring. Spring covers the months Chaithra and Vaisakha. So Chaithra is only the starting part of spring and so not above average. If these instructions are followed provocation of the Dosas are prevented.

अत्युष्णवर्षशीता हि ग्रीष्मवर्षाहिमागमाः ॥ ३४ ॥
सन्धौ साधारणे तेषां दुष्टान् दोषान् विशोधयेत् ।

(Atyusnavarsasita hi grismavarsahimagamah ‖ 34 ‖
Sandhau sadharane tesam dustan dosan visodhayet | *)*

"Greeshma, Varsha, Himagama (winter) are of exteme heat, rain and coldness. So purge the vitiated Dosas during the joints of seasons of average climates."

Purificatory steps are drastic steps which weaken the body. If they are done in extremes of climate, they weaken the body and diseases due to debility destroy the patient. So the time to expel them are in the

intervals of the seasons, as explained above.

स्वस्थवृत्तमभिप्रेत्य, व्याधौ व्याधिवशेन तु ॥ ३५ ॥

(Svasthavrttamabhipretya, vyadhau vyadhivasena tu ॥ 35 ॥)

"Here what is said is regarding the regimen for keeping health. In the case of disease, they are to be according to the diseases."

The above directions are for people who are not sick, but want to maintain and promote health. In diseased state, purificatory steps would have to be taken as per the condition of the sickness. In an emergency, the patient would have to be subjected to purificatory steps irrespective of the seasonal conditions.

कृत्वा शीतोष्णवृष्टीनां प्रतीकारं यथायथम् ।
प्रयोजयेत् क्रियां प्राप्तां क्रियाकालं न हापयेत् ॥ ३६ ॥

(Krtva sitosnavrstinam pratikaram yathayatham |
Prayojayet kriyam praptam kriyakalam na hapayet ॥ 36 ॥

"Here having taken appropriate counter steps for the seasons employ the action as per particular stage ensured. Do not overstep (pass over) the time for action."

In emergencies the urgent operative parts of treatment are to be undertaken without hesitation. If proper treatment to meet such precarious situations are not undertaken the condition may get worsened and go beyond control. So the physician should not pass over such situations taking extremity as an excuse. Create the atmosphere and use equipments helpful to protect the patient from such conditions. For instance, in cold seasons, treatment is to be done inside a warm inner room of a house sufficiently protected from cold. In summer it should be done in a room kept cold by fountains or springs convenient cooling techniques.

युञ्ज्यादनन्नमन्नादौ मध्येऽन्ते कबलान्तरे ।
ग्रासे ग्रासे मुहुः सान्नं सामुद्गं निशि चौषधम् ॥ ३७ ॥

(Yunjyadanannamannadau madhye*'nte kabalantare |*
Grase grase muhuh sannam samudgam nisi causadham ॥ 37 ॥)

"Medicine can be administered in several modes such as without food, at the beginning of eating, at the middle of the course of meal, at the end of the course, at the interval of eating, mixed with each morsel, repeatedly, joined with food, before and after the meal and at night."

The above are the directions for the intake of medicines as per the conditions and nature of troubles at different times and in different ways. There are ten occasions which are to be selected as per the nature of the disease. And all these prescriptions are meant for Samana (pacificatory) medication.

Examples of timing are given in the next stanza.

कफोद्रेके गदेऽनन्नं बलिनो रोगरोगिणोः ।
अन्नादौ विगुणेऽपाने, समाने मध्य इष्यते ॥ ३८ ॥
व्यानेऽन्ते प्रातराशस्य, सायमाशस्य तूत्तरे ।
ग्रासग्रासान्तयोः प्राणे प्रदुष्टे मातरिश्वनि ॥ ३९ ॥
मुहुर्मुहुर्विषच्छर्दिहिध्मातृट्श्वासकासिषु ।
योज्यं सभोज्यं भैषज्यं भोज्यैश्चित्रैररोचके ॥ ४० ॥
कम्पाक्षेपकहिध्मासु सामुद्गं लघुभोजिनम् ।
ऊर्ध्वजत्रुविकारेषु स्वप्नकाले प्रशस्यते ॥ ४१ ॥

(Kaphodreke gade'nannam balino rogaroginoh |
Annadau vigune'pane, samane madhya isyate ॥ 38 ॥
Vyane'nte pratarasasya, sayamasasya tuttare |
Grasagrasantayoh prane praduste matarisvani ॥ 39 ॥
Muhurmuhurvisacchardihidhmatrtsvasa-kasisu |
Yojyam sabhojyam bhaisajyam bhojyaiscitrairarocake ॥ 40 ॥

Kampaksepakahidhmasu samudgam laghubhojinam |
Urdhvajatruvikaresu svapnakale prasasyate || 41 ||)

"For patients who are strong but suffer from a severe disease predominated with Kapha, the medicine is to be given without food. When Apana is upset the medicine is given at the beginning of eating. In the afflications of Samana Vayu it is given in the middle of the meals. In Vyana disorder it is given at the end of the breakfast. In the Udana disorders at the end of the evening food. In Pranavata vitiated conditions, between the morsels of food in the process of eating. In vomiting, hiccup, thirst, cough and similar troubles repeated intake of medicine is to be done. In anorexia, medicine is to be taken with food which are varied and appetizing. In cases of tremor, convulsions and hiccup medicine can be administered before and after a light meals. In case of diseases affecting organs above the clavicle joint, sleeping time is the best for taking medicine."

Ten ways of taking medicines are as follows:

1. In diseases in which Kapha is predominating	: Medicine taken without food (Ananna)
2. In trouble of Apana	: At the beginning of eating (Annadi)
3. Samana	: At the middle of the meals (Annamadhya)
4. Vyana	: After breakfast (Pratarasanta)
5. Udana	: After supper (Sayamasantha)
6. Prana	: Between each morsel of food (Grase Grase)
7. Toxic disorders vomiting, huccup, thirst, asthma and cough	: Repeatedly (Muhuh)
8. Anorexia	: With varieties of appetising preparation (Sannam)
9. In tremor (Parkinsonism) convulsions and hiccup	: Medicine at first, then light food then again medicine (Samudgam)
10. In ear, head, throat, nose diseases	: At bed time. (Svapnakala)

इति श्रीवैद्यपतिसिंहगुप्तसूनुश्रीमद्वाग्भटविरचितायामष्टाङ्गहृदयसंहितायां सूत्रस्थाने दोषोपक्रमणीयो नाम त्रयोदशोऽध्यायः ॥

(Iti srivaidyapatisimhaguptasunusrimadvagbhataviracitayamastangahrdayasamhitayam sutrasthane dosopakramaniyo nama trayodasoʃdhyayah ||)

Thus the 13th chapter titled "Doshopakramaneeya" of Suthrasthana of Ashtamgahridaya Samhita composed by Sri vagbhata, the son of Vaidyapati Simhagupta.

अथातो द्विविधोपक्रमणीयमध्यायं व्याख्यास्यामः ।
इति ह स्माहुरात्रेयादयो महर्षयः ।

(Athato dvividhopakramaniyamadhyayam vyakhyasyamah |
Iti ha smahuratreyadayo maharsayah ||

Then we comment the chapter named "On two ways of treatment." So spake the sages, the son of Atri and others.

उपक्रम्यस्य हि द्वित्वाद् द्विधैवोपक्रमो मतः ।

(Upakramyasya hi dvitvad dvidhaivopakramo matah |)

"Since the object of treatment (disease) is dualistic, treatment also is referred as in two ways."

Disease has two stages or forms. As with Ama (Sama) and free of Ama (Niram-a). So two fold "As others also hold" reflects the author.

एकः सन्तर्पणस्तत्र द्वितीयश्चापतर्पणः ॥ १ ॥
बृंहणो लङ्घनश्चेति तत्पर्यायावुदाहृतौ ।

बृंहणं यद् बृहत्वाय लङ्घनं लाघवाय यत् ॥ २ ॥
देहस्य.....

(Ekah santarpanastatra dvividhascapatarpanah ॥ 1 ॥
Brmhano langhanasceti tatparyayavudahrtau ।
Brmhanam yadbrhatvaya langhanam laghavaya yat ॥ 2 ॥
Dehasya ----------)

"There, one is Santharpana and the second Apatarpana. Brimhana and Lamghana are their synonyms naratted. Brimhana is for growing (nourishing) the body and Lamghana is reducing, for making the body light."

Of these, two ways of treatment one is named Santharpana (satisfying or gratifying) and the second one as Apatarpana (opposite to pleasing). Brimhana is the synonym of Santharpana that increases the bulk (fattening). Lamghana is the snyonym of Apatarpana that makes the body lean.

.....भवतः प्रायो भौमापमितरच्च ते ।

(.....bhavatah prayo bhaumapamitaracca te ।)

"Among these the former represents the great elements of earth and water and the latter represents the others."

Generally, Santharpana or Brimhana have their origin from earth and water Bhutas and Apatarpana or Lamghana from other Bhutas as fire, air and space.

The medicine, methods, diets etc. used for building up the body are generally constituted with the predominance of earth and water Bhutas. An emaciation is constituted by the predominance of the other elements fire, air and space. This is only a general rule and there are exceptions. Some materials which are composed of earth and water Bhutas have emaciating or reducing property. For instance, the grains as Yavaka (an inferior variety of rice) Masura (Lens culinaris) Makustha (Phaseolus aconitifolius) and Tanduleeya (Amaranthus spinosus) on the other had certain pungent drugs with the predominance of fire, air and space also help for building up or nourishing. Ginger, long pepper and similar ones belong to this category.

स्नेहनं रूक्षणं कर्म स्वेदनं स्तम्भनं च यत् ॥ ३ ॥
भूतानां तदपि द्वैध्याद् द्वितयं नातिवर्तते ।

(Snehanam ruksanam karma svedanam stambhananca yat ॥ 3 ॥
Bhutanam tadapi dvaidhyat dvitayam nativartate ।)

"Actions as creating unctuousness and dryness, diaphoresis and petrification do not transcend this duality since they are all due to the duality of Bhutas."

The four actions as creating of unctuousness (lubrication), dryness, sweating and petrification do not pass over this duality of Santharpana and Apatarpana since they are related to Bhutas of these two types of properties.

शोधनं शमनं चेति द्विधा तत्रापि लङ्घनम् ॥ ४ ॥

(Sodhanam samananceti dvidha tatrapi langhanam॥4॥)

Of them Lamghana (creating lightness) is also two-fold such as Sodhana and Samana.

Lamghana is also of two methods. Sodhana or purificatory and Samana or pacificatory.

यदीरयेद्बहिर्दोषान् पञ्चधा शोधनं च तत् ।
निरूहो वमनं कायशिरोरेकोऽस्रविस्रुतिः ॥ ५ ॥

(Yadirayedbahirdosan pancadha sodhananca tat|
Niruho vamanam kayasirorekoʃ sravisrutih॥5॥)

"That which expels the Dosas out is the five-fold purification. They are Niruha (Va-

sthi) -- decoction or oil enemas -- Vamana (emesis), Kayavireka (purgation), Siro-virekа (purification of the head with errhines called Nasya) and blood-letting."

The five purificatory treatments are Niruha (decotion Vasthi followed by oil Vasthi) for Vata (2) Emesis for Kapha (3) purgation for cleansing the body for Pitta (4) Nasya or purging the Dosas of the upper part of the body (errhine) and (5) blood-letting to purify impure blood.

न शोधयति यद्दोषान् समान्नोदीरयत्यपि।
समीकरोति विषमान् शमनं तच्च सप्तधा ॥ ६ ॥
पाचनं दीपनं क्षुत्तृड्व्यायामातपमारुताः।

(Na sodhayati yaddosan
samannodirayatyapi|
Samikaroti visaman samanam
tacca saptaha ||6||
Pacanam dipanam ksuthrdvyayama-
tapamarutah|

"That which does not purify the Dosas and does not incite the balanced ones but brings back to equillibrium the upset ones is Samana (pacificatory or alleviatory treatment). It is seven fold. They are (1) administration of digestants (2) augmentation of Jatharagni by certain medicines (3) hunger (4) thirst (5) exercises (6) exposure to sun and (7) exposure to wind.

The medicine that does not expel the Dosas or does not vitiate the Dosas from their normalcy but brings back the abnormal Dosas in to their normal state is a Samana type of medicine. The first method among the seven ways of alleviation is Pachana that which induces ripening or maturation or resolution of ingested food materials. Ripening or maturing is the action of fire. It is just like cooking. Substances or techniques that induce the fire to mature are Pachanas. Deepana is digestion which is obtained by the augmentation of digestive fire or what is called as Jatharagni. The creation of hunger is by fasting. It is said

आहारमग्नि पचति दोषानाहारवर्जितः
धातून् क्षीणेषु दोषेषु जीवितं धातुसंक्षये

("Aharamagnih pacati dosanaharavarjitah|
Dhatun ksinesu dosesu jivitam
dhatusamksaye||")

Fire (digestive fire) at first digests the food. In the abscence of food the Dosas are digested. When the Dosas are completely digested then the seven Dhatus such as Rasa (body sap) blood, flesh etc. are digested and if Dhatus are exhausted the very life is burned. So fasting until the Dosas are consumed is a technique which helps for the reduction of morbid factors i.e. Dosas and so is alleviatory. Similarly, abandoning of drinking also helps. Exercise helps to resolve all the Dosas. Exposing to sun and wind are also techniques to reduce the Dosas.

बृंहणं शमनं त्वेव वायोः पित्तानिलस्य च ॥ ७ ॥

(Brmhanam samanantveva vayoh
pittanilasya ca||7||

"For Vayu and Pitta with Vayu, Brimhana is Samana itslef. Although Samana is a method of Lamghana in cases of unmixed Vata and mixture of Vata and Pitta, Brimhana itself is a Samana method."

Upto here categories of the two main therapies i.e. Brimhana (nourishing treatments) and Lamghana (emaciating treatments) are mentioned. The latter has been divided into two main branches i.e. Sodhana and Samana. As a matter of fact Brimhana reflects as Samana in certain conditions of treatment. In the vitiation of single Vata and combination of Vata and Pitta Brimhana acts as Samana without producing that may lead to some discomf-

ort. For instrance, milk is a Brimhana drug acts as Sodhana also hence it has laxative property. But it decreases the vitiation of Vata and the combination of Vata and Pitta. The purificatory treatment (Sodhana) has the blasphemy of vitiating the above mentioned Dosa leavels. But Brimhana when used as Samana it does not vitiate the Dosas.

बृंहयेद्व्याधिभैषज्यमद्यस्त्रीशोककर्शितान् ।
भाराध्वोरःक्षतक्षीणरूक्षदुर्बलवातलान् ॥ ८ ॥
गर्भिणीसूतिकाबालवृद्धान् ग्रीष्मेऽपरानपि ।

(Brmhayedvyadhi bhaisajyamadya-
strisokakarsitan|
Bharadhvorah ksataksina
ruksadurbalavatalan||8||
Garbhinisutikabalavrdhan grisme/paranapi|)

"All those who have become lean (or reduced) by the sufferings of diseases and medication (rigidity of medicine) abuse of alcohol, indulgence of sex and sorrow or are weakned by carrying heavy loads, travelling excessive walking and suffering from lesions on the chest, and those who have dried bodies (without unctuousness) who have lost strength and who are with more of Vata and women who are in the stage of gestation or puerperium, children and old men are to be subjected to Brimhana (nourishing). In summer season others also (young and healthy men) are to be treated with Brimhana."

Brimhana is indicated to all those that are emaciated, weakened, dry and who have undergone sufferings. In summer everybody is liable to be treated with Brimhana. Those that have become thin due to the sufferings of disease, long term use of medicine, alcohol, excess of sex and sufferings from sorrow are to be nourished. Those who are weakned by carrying the heavy loads, by long walks, by wounds or lesion of the chest and those who are with dry body, who are naturally weak and of Vata predominating type women in the carrying stage and after delivery, boys and old persons are all to be treated with Brimhana.

मांसक्षीरसितासर्पिर्मधुरस्निग्धवस्तिभिः ॥ ९ ॥
स्वप्नशय्यासुखाऽभ्यङ्गस्नाननिर्वृतिहर्षणैः ।

(Mamsaksirasitasarpirmadhurasnigdha-
vastibhih||9||
Svapnasayyasukhabhyangasnana-
nirvrtiharsanaih)|

"They are to be nourished with meat, sugar, ghee and employing Vasthis (enemas) that are sweat, and unctuous, sleep, pleasure giving rests, inrecumbent postures, inunctions, baths, creating mental satisfaction and happiness. A common list of substances, equipments, actions and situations which promote nourishment are given thus."

मेहामदोषातिस्निग्धज्वरोरुस्तंभकुष्ठिनः ॥ १० ॥
विसर्पविद्रधिप्लीहशिरःकण्ठाक्षिरोगिणः ।
स्थूलांश्च लङ्घयन्नित्यं शिशिरे त्वपरानपि ॥ ११ ॥

(Mehamadosatisnigdhajvarorustambha-
kusthinah||10||
Visarpavidradhiplihasirahkanthaksiroginah|
Sthulamsca langhayennityam sisire
tvapranapi||11||

"Reducing treatment (Lamghana) is to be given to all sufferings in the system), over - lubrication, fever, immobility of the thighs (Oorusthamba) skin troubles, visarpa (erysipelas) abscesses, diseases of spleen, head, neck and eyes and obese people. In cold season everybody else is also to be subjected to reducing treatments."

तत्र संशोधनैः स्थौल्यबलपित्तकफाधिकान् ।
आमदोषज्वरच्छर्दिरतीसारहृदामयैः ॥ १२ ॥
विबन्धगौरवोद्गारहृल्लासादिभिरातुरान् ।
मध्यस्थौल्यादिकान् प्रायः पूर्वं पाचनदीपनैः ॥ १३ ॥
एभिरेवामयैरार्तान् हीनस्थौल्यबलादिकान् ।
क्षुत्तृष्णानिग्रहैर्दोषैस्त्वार्तान् मध्यबलैर्दृढान् ॥ १४ ॥
समीरणातपायासैः किमुतालपबलैर्नरान् ।

(Tatra samsodhanaih
sthaulyabalapittakaphadhikan|
Amadosajvaracchardiratisara-
hrdamayaih||12||
Vibandhagauravodgarahrlla-
sadibhiraturan|
Madhyasthaulyadikan prayah
purvam pacanadipanaih||13||"
Ebhirevamayairartan hinasthaulya-
baladikan|
Ksuttrsnanigrahairdosaistvrartan
madhyabalairdrdhan||14||
Samiranatapayasaih
kimutalpabalairnaran|)

"Those who are excessively obese and strong with more Pitta and Kapha and those who suffer from Amadosa, fever, vomitting, diarrhoea, heart troubles, constipation, heaviness of body, eructation and troubles of the chest are to be managed by purifying treatments. These cases such as Amadosa, fever and so on when appear in the patients with moderate obesity, strength and vitiation of Pitta and Kapha are to be treated first by Pachana and Deepana and by the purificatory methods. Here the instructions are for a general guidance. We have to look into all states of the place, time, like factors minutely."

If those who are affected with these diseases are of least strength, obesity and vitiation of Pitta and Kapha, They are to be treated with the techniques as the urges for hunger and thirst (by fasting and stopping drinking). If those who possess firm body are afflicted with the moderate vitiation of Dosas then they are to be treated by exposing to sun and wind and guiding them to take exercises. Then what about those who are with low strength and suffer from only a little of Dosas? They also are to be treated by exposing to sun and wind and resorting to exercises.

न बृंहयेल्लङ्घनीयान्.....
(Na brmhayellanghaniyan.....)

"Never do Brimhana treatment to those who are to be resorted to Lamghana treatment."

There are various situations which confuse the physician regarding the right course to be selected in treatment. Ama may create conditions obstructing the body pores in which the patient gets weakened or emaciated. If the physician takes this situation as due to the lack of proper nutrition and administer nourishing treatments, it only increases the Ama and create further obstructions to the body pores. Here Lamghana treatment helps to open the body pores. So the physician who advises Brimhana treatment here helps only to aggravate the conditions.

.....बृंह्यांस्तु मृदु लङ्घयेत् ॥ १५ ॥
युक्त्या वा देशकालादिबलतस्तानुपाचरेत् ।
(..... brmhyamstumrdulanghayet||15||
Yuktya va desakaladibalatastanupacaret|)

"Give mild Lamghana treatment to those whom Brimhana is to be done."

Treat them all suitably considering the porportionate strength of the place, time- and other factors. If those to whom Brimhana treatment has to be given who are suffering from troubles where Lamghana techniques are to be applied, subject them to mild Lamghana techniques only (as fasting, giving mild laxatives etc. Or treat them suitably considering the strength of the time (intensity of climate place and other factors, according to the conditions of the body and environmental conditions so that they are all in accord.

बृंहिते स्याद्बलं पुष्टिस्तत्साध्यामयसङ्क्षयः ॥ १६ ॥
(Brmhite syadbalam
pustistatsadhyamayasanksyah||16||)

"If Brimhana is undertaken, promoting of strength, increase of bulk (fattening) and

the decrease of the disease curable by it are achieved."

Brimhana increases strength and bulk of the body. And naturally the diseases curable by it are reduced by the proper Brimhana technique.

विमलेन्द्रियता सर्गो मलानां लाघवं रुचिः।
क्षुत्तृट्सहोदयः शुद्धहृदयोद्गारकण्ठता ॥ १७ ॥
व्याधिमार्दवमुत्साहस्तन्द्रानाशश्च लङ्घिते।

(Vimalendriyata sargo malanam laghavam rucih|
Ksuttrtsahodayah sudhardayodgarakanthata ||17||
Vyadhimardavamutsahastandranasasca langhite|)

"Clearness of organs, proper movement of the Malas (faeces, sweat, urine etc.) lightness, appetite, simultaneous appearance of hunger and thirst, clearness of the heart, eructations and throat softness of the diseases, enthusiasm and disappearnace of lassitude are gained by Lamghana."

The benefits gained by Lamghana treatments are shown briefly. Clearness of the sensory and motor organs or improvement of their efficiency to do things. Proper movement of Malas, orderly defaecation, urination are obtainable by it. Body feels light and not heavy and unmanageable. Proper appetite at the mealtime, hunger and thirst are properly felt coming together. Heart, eructation and neck are flet clear. The disease is abated or softened. One feels cheerness and lassitude is shed.

अनपेक्षितमात्रादिसेविते कुरुतस्तु ते ॥ १८ ॥
अतिस्थौल्यातिकार्श्यादीन्, वक्ष्यन्ते ते च सौषधाः।

(Anapeksitamatradisevite kurutastute||18||
Atisthaulyatikarsyadin, vaksyante te ca sousadhah|)

"The treatments, if resorted to without heeding to the rules of dose etc. create obesity or over emaciation. They are described with apt medicines later."

रूपं तैरेव च ज्ञेयमतिबृंहितलङ्घिते ॥ १९ ॥

(Rupam taireva ca jneyamatibrmhitalanghite||19||)

The forms (signs) of them (obesity or excessive emaciation) are to be known as by themsleves (their own names). (Over Brimhana is known by the over-fattened form and over Lamghana by the over emaciated form.)

अतिस्थौल्यापचीमेहज्वरोदरभगन्दरान्।
कासस्न्यासकृच्छ्रामकुष्ठादीनतिदारुणान् ॥ २० ॥

(Atisthaulyapacimehajvarodarabhagandaran|
Kasasanyasakrcchramakusthadinatidarunan||20||)

"Due to over Brimhana, over obestity, Apachi (scrofula), ascites, fistula-in-ano, cough, Sanyasa (comatic stage with can be aroused only by timely medication), difficult or obstructed micturition, Ama troubles (as Amavata, Oorusthambha), skin troubles including leprosy and other very severe maladies are created."

तत्र मेदोऽनिलश्लेष्मनाशनं सर्वमिष्यते।

(Tatra medo ∫ nilaslesmanasanam sarvamisyate |)

There everything that destroys (acts against) fat, Vata and Kapha as food, drink and medicines are used.

कुलत्थजूर्णश्यामाकयवमुद्गमधूदकम् ॥ २१ ॥
मस्तुदण्डाहतारिष्टचिन्ताशोधनजागरम्।
मधुना त्रिफलां लिह्याद् गुडूचीमभयां घनम् ॥ २२ ॥
रसाञ्जनस्य महतः पञ्चमूलस्य गुग्गुलोः।
शिलाजतुप्रयोगश्च साग्निमन्थरसो हितः ॥ २३ ॥
विडङ्गं नागरं क्षारः काललोहरजो मधु।
यवामलकचूर्णं च योगोऽतिस्थौल्यदोषजित् ॥ २४ ॥

(Kulathajurnasyamakayavamudga madhudakam || 21 ||
Mastudandahataristacintasodhana jagaram |
Madhuna triphalam lihyad guducima- bhayam ghanam || 22 ||
Rasanjanasya mahatah pancamulasya gugguloh |

Silajatuprayogasca sagnimantharaso hitah ॥ *23* ॥

Vidangam nagaram
ksarah kalaloharajo madhuh ।
Yavamalakacurnanca
yogo ʃ tisthaulyadosajit ॥ *24* ॥

Horsegram, maize, Italian millet, Indian barley, greengram, honey mixed in water, whey, buttermilk, arishta (self generated alcohol prepared with medical ingredient) pensiveness, purification, awakening (at day and night) and licking of the three fruits (three myrobalans -- Thriphala) Amrita (Tinospora cordifolia), Haritaki (Chebulic myrobalan) or Mustha (Cyperus rotundus) with honey, the use of (intake) Rasanjana (a preparation of Berberis aristata), Mahapanchamoola (Aegle marmelos, Gmelina arborea, Stereospermum suaveolens, Oroxylum indicum, Premna corymbosa), Guggulu (Commiphora mukul) the use of Silajit (Asphaltum) with the juice of Agnimandha (Premna corymbosa) are all good. The formula containing the seeds of Embelia ribes (Vidanga) ginger, Pottasium carbona impura (Yavakshara), iron powder, honey, powder of Indian barley and Emblica officinalis conquers the ill effects of obesity.

व्योषकट्वीवराशिग्रुविडङ्गातिविषास्थिराः।
हिङ्गुसौवर्चलाजाजीयवानीधान्यचित्रकाः ॥ २५ ॥
निशे बृहत्यौ हपुषा पाठा मूलं च केम्बुकात्।
एषां चूर्णं मधु घृतं तैलं च सदृशांशकम् ॥ २६ ॥
सक्तुभिः षोडशगुणैर्युक्तं पीतं निहन्ति तत्।
अतिस्थौल्यादिकान् सर्वान् रोगानन्यांश्च तद्विधान् ॥ २७ ॥
हृद्रोगकामलाश्वित्रश्वासकासगळग्रहान्।
बुद्धिमेधास्मृतिकरं सन्नस्याग्नेश्च दीपनम् ॥ २८ ॥

(Vyosakatvivarasigruvidangativisasthirah ।
Hingusauvarcalajajiyavanidhanyacitrakah ॥ *25* ॥
Nise brhatyau hapusa patha mulanca
kembukat ।
Esam curnam madhu ghrtam tailanca
sadrsamsakam ॥ *26* ॥
Saktubhih sodasagunairyuktam pitam
nihanti tat ।
Atisthaulyadikan sarvan
roganananyamseatadvidham ॥ *27* ॥
Hrdrogakamalasvitravasaka-
sagalagrahan ।
Buddhimedhasmrtikaram sannasyagnesca
dipanam ॥ *28* ॥ *)*

"The three acrids (black pepper, long pepper, ginger), Picrorrhiza kurroa, three fruits (chebulic, belleric, embelic myrobalans), Drum-stick (Moringa oleifera), Embelia ribes, Aconitum heterophyllum, Desmodium gangeticum, Ferula asafoedita, Sodii carbonas impura, cumin seeds, ajowan seeds, coriander, Plumbago rosea, two turmerics (Curcuma long and Berberis aristata) Solanum indicum, Solanum xanthocarpum, Juniperus communis, Cissampelos pariera, root of Costus speciousus (all these powdered as one part) equal measure of honey, and the same proportion of ghee and gingelly oil all combined with a quantity sixteen times of the powder of parched rice taken in cures all diseases due to obesity and diseases such as heart diseases, jaundice, leucoderma, asthma, cough, obstruction of the neck. It also creates intellect and wisdom and helps to stimulate the slackened gastric fire."

अतिकार्श्यं भ्रमः कासः तृष्णाधिक्यमरोचकः।
स्नेहाग्निनिद्रादृक्श्रोत्रशुक्लौजःक्षुत्स्वरक्षयः ॥ २९ ॥
वस्तिहृन्मूर्धजङ्घोरुत्रिकपार्श्वरुजा ज्वरः।
प्रलापोर्ध्वानिलग्लानिच्छर्दिपर्वास्थिभेदनम् ॥ ३० ॥
वर्चोमूत्रग्रहाद्याश्च जायन्तेऽतिविलङ्घनात्।

(Atikarsyam bhramah
kasastrsnadhikyamarocakah ।
Snehagninidradrksrotrasukraujah
ksutrvaraksayah ॥ *29* ॥
Vastihrnmurdhajanghorutrika
parsvaruja jvarah ।
Pralapordhvanilaglanicchardi
parvasthibhedanam ॥ *30* ॥
Varcomutragrahadyasca jayante ʃ
tivilanghanat । *)*

"Excessive emaciation, vertigo, cough, excessive thirst, anorexia, weakness or loss of unctuousness, digestive fire, sleep, vision, hearing capacity, semen, ojas, hunger and voice, pain at the region of urinary bladder, heart, head, fore-leg and thighs, at the clavicle joint and flanks, fever, incoherent talk, weakness of upward movement of Vata (Prana and Udana) vomiting, piercing pain at the joints and bones, holding up of faeces an urine and similar troubles are formed by excessive Lamghana."

Loss or decrease of nine essentials as unctuousness, digestive fire, sleep, power of eye and ear, semen, Ojas, hunger and speech and pain on the seven organs as Vasthi (bladder), heart, head, (three Marmas) thighs and legs, Trika (clavicle joints) and the flanks are various forms of troubles due to the Vata disorder.

कार्श्यमेव वरं स्थौल्यात् न हि स्थूलस्य भेषजम् ॥ ३१ ॥
बृंहणं लङ्घनं वाऽलमतिमेदोऽग्निवातजित् ।

(Karsyameva varam sthaulat nahi sthulasya bhesajam || 31 ||
Brmhanam langhanam va f' lamatimedo f' gnivatajit |

"Between emaciation and obsesity, emacation is more desirable than obesity because, Brimhana or Lamghana is not a medicine for obesity. For excessive fat the medicine should eliminate the excess of fat, and decrease the excess of digestive fire and Vata."

A medicine that reduces fat extinguishes digestive fire and increases Vata. By Brimhana fat increases and accumulates in the obese and Lamghana decreases fat. But there digestive fire and Vata will accumulate. Therefore, nourishing diets as meat, milk, and others and weight reducing articles of food as grass grains (belonging to epraminiae) as Italian millet etc. are not helpful to reduce fat. Lamghana reduces fat but not able to control increase of fire and Vata. So the difficulty lies in the treatment for obese.

मधुरस्निग्धसौहित्यैर्यत्सौख्येन च नश्यति ॥ ३२ ॥
कृशिमा स्थविमाऽत्यन्तविपरीतनिषेवणैः ।

(Madhurasnigdhasauhityairyatsaukhyena ca nasyati || 32 ||
Krasima sthavima f' tyantaviparitanisevanaih |

"Because emaciation goes down by the pleasure giving usage of sweet and unctuous and also by inner satisfaction. But obesity is held down only by undertaking services of extremely opposite character."

So emaciation is comparatively a lesser evil than obesity. Sweet and unctuous foods are welcomed by men. In emaciation such foods and pleasure giving circumstances are used. But in obesity everything disliked by men are to be used. For food, diet and medicine those that are bitter, pungent and astringent and dry are to be selected.

In diseases that can be controlled by Brimhana techniques in works better in the case of emaciated men while in the obese it is an unfavourable treatment. In diseased which are to be managed with Lamghana techniques, as for eg. Vishuchika (Gastroenteritis or cholera), also the emaciated can get easy relief. Here the main technique is Sweda (sweating) and Sweda is contra-indicated in obese [न स्वेदयेत् अतिस्थूलाम् (Na svedayedati sthulam)] "do not foment the over obesed."

Lamghana is resorted to it inflames fire and increases Vata. If Brimhana treatment is given it increases Ama. But in the case of the emaciated there are no such dilemmas.

योजयेद् बृंहणं तत्र सर्वं पानान्नभेषजम् ॥ ३३ ॥

(Yojayed brmhanam tatra sarvam panannabhesajam || 25 ||)

"In emaciated, drinks, foods and medicines which are nourishing are to be supplied."

अचिन्तया हर्षणेन ध्रुवं सन्तर्पणेन च।
स्वप्नप्रसङ्गाच्च कृशो वराह इव पुष्यति ॥ ३४ ॥
(Acintaya harsanena dhruvam
santarpanena ca |
Svapnaprasangacca krso varaha
iva pusyati || 34 ||)

The emaciated gets fattened as a pig by being happy without any thoughts and always getting pleasant treatments and with sleeping practices and unworried life.

न हि मांससमं किञ्चिदन्यद्देहबृहत्वकृत्।
मांसादमांसं मांसेन सम्भृतत्वाद्विशेषतः ॥ ३५ ॥
(Na hi mamsasamam kincidanyat
dehabrhatvakrt |
Mamsadamamsam mamsena
sambhrtatvat visesatah || 35 ||)

"In substances that nourish other bodies (of animals) there is nothing equal to meat. The meat of carnivorous animals, is particularly good due to storage of meat i.e. their bodies are fattened by meat."

No food is equal to meat in nourishing the bodies of other animals including men. And meat of animals as tigers, lions and others which subsist on meat is particularly good since they are themselves fattened by the meat of other animals.

गुरु चातर्पणं स्थूले विपरीतं हितं कृशे।
यवगोधूममुभयोस्तद्योग्याहितकल्पनम् ॥ ३६ ॥
(Guru catarpanam sthule viparitam
hitam krse |
Yavagodhumamubhayostadyogyahita
kalpanam || 36 ||

Prescribe everything heavy and reducing for fattened and the opposite for emaciated. Indian barley and wheat are to be prescribed to both according to their suitability. For obese suggest medicines and diet which are heavy and which decrease the bulk and weight as honey, lotus tuber (Salooka) etc. (Salooka is dry, holding bowels, cold and heavy). For emaciated dietetic articles as Sali and Shashtika rice, flesh of deer, hare, birds like partidges (Lava) and similar one are to be suggested., Over emaciated persons would have their digestive fire also dimmed. So if they are given heavy food, drink and medicines then the digestive fire will be further slackened. Therefore, they are to be served with nourishing but light foods. But for obese food which are of a reducing or anti-lipidic nature as Syamaka (Italian millet) etc., which although not heavy are good to conquer fat can be used. To keep awake in the night, coitus, exercises etc. are also fat-reducing techniques to be used judiciously. Preparations of Indian barley and wheat can be given in suitable media. For obese they can be given after refining is nourishing articles like ghee and milk. For obese barley is good. For the lean wheat is good. In this way what is appropriate can be selected.

दोषगत्याऽतिरिच्यन्ते ग्राहिभेद्यादिभेदतः।
उपक्रमा न ते द्वित्वाद्भिन्ना अपि गदा इव ॥ ३७ ॥
(Dosagatya f tiricyante
grahibhedyadibhedatah |
Upakrama na te dvitvadbhinna api
gada iva || 37 ||)

Although the varieties of treatments are unlimited due to the innumerable Dosas, all the treatments can be brought under the two groups i.e. Brimhana and Lamghana. However they appear in pairs such as Grahi (medicine that holds up the Dosas) and Bhedi (medicine that motivates the Dosas) Sita and Ushna, Swedana and Sthambhana and so on. The treatment would not transcend the two major divisions as various types of diseases would not deviate from their duality (i.e. Amatva and Niramatva).

Dosas are with innumerable form and courses. They may be mixed and combined with different degrees of intensity due to differences of proportions, some Dosas may be less, others more or equal and due to differences of seats occupied as the

position of Dosas remaining as vertical of horizontal to the body and whether they are in Sakha, Koshtha or Asthi (bone) and Sandhis (joints) and so on. Treatments also are of various forms. In diarrhoea, medicines as diet are for holding up the bowels. In a constipated condition that which moves the bowels. In irregularity of digestive fire that which makes it steady. Still they do not transcend the basic divisions as Santarpana and Apatarpana. All forms of treatment are only techniques that can be included either in Santharpana or Apatarpana. The innumerable forms of the courses of Dosas are treated either with Santharpana or Apatarpana, for e.g. in some cases Snehapana (oleation) is done and in others Rookshana (drying) is necessary. Snehana is Santharpana and Rookshana is Apatarpana.

All diseases have two conditions. Sama (with Ama) or Nirama. In Sama, Apatarpana is done in Nirama nourishing or Brimhana is done. So the duality of treatment is never transcended.

इति श्रीवैद्यपतिसिंहगुप्तसूनुश्रीमद्वाग्भटविरचितायामष्टाङ्गहृदयसंहितायां सूत्रस्थाने द्विविधोपक्रमणीयो नाम चतुर्दशोऽध्यायः ।

(Iti srivaidyapatisimhaguptasunusrimadvagbhataviracitayamastangahrdayasamhitayam sutrasthane dvividhopakramaniyo nama caturdaso f dhyayah ॥)

So the fourteenth chapter titled "for two ways of treatment" of the Suthrasthana, of Ashtambahridaya Samhita composed by Vagbhata, the Son of Vaidyapati Simhagupta. ●

One should practice to talk like a parrot, and meditate like a crane. Masticate the food particles as a goat and take a bath as an elephant. (Elephant usually desires to take bath in great depths of water making use of plenty of water.) Similarly, one has to take a bath with an ample quantity of water.

-Vaidyakeeyasubhashita

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CLINICAL OBSERVATION ON THE EFFECT OF SOLANUM KHASIANUM LINN. ON TROPICAL PULMONARY EOSINOPHILIA

C.R. Karnick

Abstract: *Fifty patients of various age groups of tropical pulmonary eosinophilia were studied. Clinical patterns were recorded in each case and all patients were treated with extracts of* **Solanum khasianum** *Linn. for 60 days.*

Absolute eosinophil counts were recorded in the patients during study. Radiological investigation revealed that 70% of patients showed signs of healing while 30% had calcified lesions. 10% of cases showed hilar prominence and mottled shadows were seen in the remaining 10%.

No clinical side effects or any signs of toxicity were observed. There was good response to the drug.

INTRODUCTION:

Tropical pumonary Eosinophilia is commonly seen in the coastal areas of Maharashtra. The term, tropical pulmonary Eosinophilia was given by Weingarten (1879). The condition is characterised by severe spasmodic cough (bronchitis), leucotytosis, a very high absolute eosinophil count, paroxyzm of dyspnoea with some constitutional features. The highest number of patients came from the lower income groups and form those living in slums

MATERIALS AND METHODS

Fifty cases of tropical pulmonary eosinophilia were studied. Sweta Kantakari (Solanum khasianum Linn, family - Solanaceae) the well-known ayurvedic herb was dried and extracted and used. Dosage: Capsules were used in adults twice a day for 40-60 days. Children were given water decoction 5 to 10 ml daily with honey. Starch and oily foods namely pickles etc. were avoided.

Animal studies were carried out for LD50 on rats. It was observed that the drug did not show any toxicity. All cases were carefully exmined in our hospital and attached Research Institute where complete screening of blood, stool, urine and X-ray of chest, were carried out. A detailed clinical history was taken and complete physical examination was carried out. Total leucocyte count and differential count were carried out in all patients. The total absolute eosinophil counts was statistically evaluated by computer analysis. The main criteria for diagnosis of tropical pulmonary eosinophilia in this study was total absolute count above 2000/cu mm. X-ray examination was carried out in all patients. The control group of 10 patients were given blank capsules.

CRITERIA EVALUATION

Good responses were given to patients showing complete relief in clinical signs and symptoms and with a total absolute eosinophil count lowered to below 1000 cu/mm. The patients included in good

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response group were those who showed complete relief in the sign and symptons with some reduction of absolute counts.

RESULTS AND OBSERVATIONS

Various tables record the data obtained:

TABLE - I

Age incidence in the patients of Tropical Pulmonary Eosinophilia

Sl. No.	Age group	No. of patients	Percentage
1.	1 - 40 years	3	3%
2.	11 - 25 years	10	10%
3.	25 - 30 years	25	25%
4.	30 - 40 years	20	20%
5.	40 - 60 years	10	10%

TABLE - II
Sex incidence

Sex	No. of Patients	Percentage
Male	30	60%
Female	20	40%

Table - III
Incidence of Symptoms

Sr. No.	Symptoms	No. of patients	Percentage
01.	Dyspnoea	30 ± 3	70%
02	Dry cough	35 ± 5	90%
03	Cough with expectoration	10 ± 2	25%
04	Fever + Cough	20 ± 5	85%
05	Loss of appetite	25 ± 2	30%
06	Sneezing	20 ± 2	11%
07	Chest pain	5 ± 1	22%
08	Loss of Weight	10 ± 3	80%
09	Bodyache	35 ± 5	45%
10	Haemoptysis	5 ± 2	10%

Table - IV
Incidence of Signs

Sr. No.	Signs	No. of patients	Percentage
1	Rhonchia	35 ± 3	90%
2	Rales	20 ± 1	40%
3	Prolonged expitation	10 ± 1	20%
4	Lymphadenopathy	5 ± 1	5%
5	Enlarged Liver	10 ± 1	5%

Table - V
Incidence of Parasites in Stool

Stool Examination	No. of Patients	Percentage
N.A.D.	70	80.5%
Parasites	30	20.1%

Table - VI
Absolute Eosinophil Count

Sr. No.	Absolute Eosinophil Counts	No. of Patients	Percentage
1.	2000 - 3000	65	80%
2.	3000 - 4000	25	40%
3.	4000 - 5000	15	20%

Table - VII
Effect of Solanum Khasianum Linn. (Water extract on total absolute eosinophilia)

Count: Total absolute count per cu mm.

No. of Individuals	Before treatment	After 30 days treatment	After 45 days treatment
10	3200	2000	1600
20	2500	2200	1800
30	2600	2000	1700
40	3500	2600	1900

No. of Individuals	Before treatment	After 30 days treatment	After 45 days treatment
10	5000	4100	3600
20	2800	2500	1800
10	3000	2500	2400
10	4600	3800	2900
20	2800	2300	1800
10	2800	2400	2000
Mean Value	3240	2640	2150

Table - VIII
Incidence of Radiological Findings

Sr. No.	Radiological evidence	No. of Patients	Percentage
1.	N.A.D.	35	70%
2.	Healed caterfeed lesions	15	30%
3.	Hilar prominence	5	10%
4.	Mottled shadows	5	10%

DISCUSSIONS AND CONCLUSIONS

The clinical picture of treated patients appeared to be good. Out of the fifty patients with increased level of eosinophil count, most ofthe cases showed lowered level of the count after 30-40 days of the treatment. Mean total value of Eosinophil count was 240 before starting the treatment. It decreased to 2640 at the end of 30 days of treatment. After 45 days of treatment the count was reduced to 2150 per cu mm.

The study therefore reveals that, this drug shows good potential in the treatment of tropical eosinophila.

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Enumeration of Medicinal plants from the East Godavari Districts of Andhra Pradesh

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ABSTRACT:

The present paper deals with 290 species of medicinal plants collected from the East Godavari District of Andhra Pradesh belonging to 247 genera and 90 families. The species of medicinal plants dealt with are enumerated alphabetically under their respective families. The district is extremely rich in potential medicinal plant wealth which can be utilized by different indigenous systems of medicine. Herbal drug collection centres should be established in the various parts of the district for bulk collection of herbs and their utilization. There is extensive economic exploitation of some rare medicinal plants like Rauvolfia serpentina which tend to be in verge of extinction.

INTRODUCTION:

East Godavari District lies between 16° 30° to 18° 20°N latitude and 81° 30° to 82° 30° E longitude. The district is bounded by Visakhapatnam District and part of Orissa State in the north, Bay of Bengal in the east and south, West Godavari and Khammam districts in the west. The total forest area of the district accounts for 16,070 sq km which is about 30.7% of the total area of the district. According to forest records, the forest land under reserved forest in the district is 3, 232 sq km. The vegetation of East Godavari District is extremely varied depending upon the climate, altitude and other factors. It can be broadly divided into 3 categories: 1. costal vegetation, 2. upland vegetation and 3. the hill vegetation. East Godavari District of Andhra Pradesh State with rich forests harbours a variety of medicinal plants. The altitude ranges between 200 and 1000 m. The average annual rainfall is 1159 mm. The temperature varies between 18°C and 40°C.

MATERIAL AND METHODS:

Several field tests were carried out in the area during the years 1993-94. The plants were collected, identified and preserved. Botanical exploration of this region have been started by a few botanists (Gamble - 1935, Rolla S Rao-1958, Sudhakar-1982) and a little work has been done on medicinal plants of Andhra Pradesh and even East Godavari District (Naidu -1966, Prakasa Rao-1966, Hemadri-1976, Rolla S Rao -1979).

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RESULTS:

The present paper reports on 290 medicinal plants spread over 247 genera and 90 families. Out of these 287 species are of Angiosperms and 3 Ferns. They are arranged alphabetically with their botanical names followed by their family, local names, locality/frequency in table I

DISCUSSION:

About 290 medicinal plant species occuring in East Godavari District of Andhra Pradesh State are enumerated. The present paper provides basic data on the medicianal plant species, their distribution, availability, density of growth together with correct identity. Commercial exploitation of about 50 major medical plans is regularly done in the District. There is extensive economic exploitation of some rare medicinal plants. Rauvolfia serpentina was once a fairly common species in the district. But it is now rarely seen due to unsystematic over exploitation by drug collecting agencies and is on the verge of extinction. Basic data helps the scientific community, foresters, agriculturists as well as to the practitioners of the indigenous system of medicine. It also helps the local Ayurvedic practitioners in understanding, identifying and collecting the specific plants and in cultivating them in suitable places in the district. The present paper also emphasizes the need for conservation of some rare medicinal plants grown in the area.

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Table I

Botanical Name	Family	Local Name	Frequency / Locality
1	2	3	4
Abrus precatorius Linn.	Fabaceae	Gurivinda	Not frequent
Abutilon indicum (Linn.) Sweet	Malvaceae	Tutturubenda	Abundant
Acacia catechu Willd.	Mimosaceae	Kaviri	Not frequent

Acacia chundra Willd.	Mimosaceae	Chandra	Not frequent
Acacia leucophloea Willd.	Mimosaceae	Tellatumma	Frequent
Acalypha indica Linn.	Euphorbiaceae	Muripinda	Abundant
Acanthospermum hispidum DC.	Asteraceae	Guntagalagara	Frequent in sandy soils
Achyranthes aspera Linn.	Amaranthaceae	Uttareni	Frequent
Actiniopteris australis Link	Actinipteridaceae	Mayurasika	Frequent in rocky slopes
Adhatoda vasica Nees	Acanthaceae	Addasaramu	Frequent as an avenue plant
Adiantum capillus-veneris Linn.	Adiantaceae	Hamsapadi	Frequent in rocky slopes.
Adina cordifolia Benth. & Hook.	Rubiaceae	Bandaru	Frequent
Aegle marmelos Correa ex Roxb.	Rutaceae	Maredu	Frequent
Aerva lanata Juss. ex Schult.	Amaranthaceae	Pindichettu	Abundant
Ageratum conyzoides Linn.	Asteraceae		Abundant
Ailanthus excelsa Roxb.	Simaroubaceae	Peddamanu	Frequent
Alangium salvifolium (Linn.f.) Wang.	Alangiaceae	Udugu	Frequent
Albizia lebbek Benth.	Mimosaceae	Dirisana	Frequent
Allium cepa Linn.	Liliaceae	Nirulli	Cutlivated
Allophylus cobbe (Linn.) Rausche.	Sapindaceae	Eravalu	Frequent
Alocasia indica (Roxb.) Schott	Araceae	Charakanda	Frequent
Aloe barbandensis Mill.	Liliaceae	Kalabanda	Frequent
Alpinia galanga Willd.	Zingiberaceae	Dumparashtram	Frequent
Alstonia scholaris R.Br.	Apocynaceae	Edakulapala	Frequent in Mangampadu area
Alternanthera sessilis DC.	Amaranthaceae	Ponnangantikura	Frequent
Amaranthus spinosus Linn.	Amaranthaceae	Mullatotakura	Frequent
Ammannia baccifera Linn.	Lythraceae	Agnivendrapaku	Frequent
Amorphophallus campanulatus Blume ex Decne.	Araceae	Manchikanda	Cultivated
Andrographis paniculata Wall. ex Nees	Acanthaceae	Nelavemu	Abundant
Anisomeles indica (Linn.) Kuntze	Lamiaceae	Magabira	Frequent
Annona muricata Linn.	Annonaceae	Laxmanaphalam	Cultivated
Annona reticulata Linn.	Annonaceae	Ramaphalam	Cultivated
Annona squamosa Linn.	Annonaceae	Sitaphalam	Cultivated
Anogeissus latifolia Wall. ex Bedd.	Combretaceae	Chirumanu	Frequent
Areca catechu Linn.	Aracaceae	Poka	Cultivated
Argemone mexicana Linn.	Papaveraceae	Brahmadandi	Abundant
Argyreia nervosa (Burm.f.) Boj.	Convolvulaceae	Samudrapala	Frequent
Aristolochia bracteolata Retz.	Aristolochiaceae	Gadidagadapa	Frequent
Aristolochia indica Linn.	Aristolochiaceae	Ishwari	Frequent
Artimisia nilagirica Pamp.	Asteraceae	Machipatri	Cultivated
Arundo donax Linn.	Poaceae		Frequent
Asparagus racemosus Willd.	Liliaceae	Pillitegalu	Frequent
Asystasia gangetica T. Anders.	Acanthaceae		Abundant

Atylosia scarabaeoides Benth.	Fabaceae	Adavivulavalu	Frequent
Azadirachta indica A. Juss.	Meliaceae	Vapa	Abundant
Azima tetracantha Lam.	Salvodoraceae	Tellauppi	Frequent
Bacopa monnieri (Linn.) Penn.	Scrophulariaceae	Brahmi	Abundant
Barleria prionitis Linn.	Acanthaceae	Mullagorinta	Frequent
Barringtonia acutangula Gaertn.	Barringtoniaceae	Kadapa	Frequent
Basella alba Linn.	Basellaceae	Bachalli	Cultivated
Bauhinia racemosa Lam.	Caesalpiniaceae	Are chettu	Frequent
Bauhinia vahlii Wight & Arn.	Caesalpiniaceae	Addaku	Abundant
Benincasa hispida (Thunb.)Cogn.	Cucurbitaceae	Budidagummadi	Cultivated
Biophytum sensitivum (Linn.) DC.	Oxalidaceae	Jalapushpa	Frequent
Bixa orellana Linn.	Bixaceae	Japhara	Cultivated
Boerhaavia diffusa Linn.	Nyctaginaceae	Punarnava	Abundant
Bombax ceiba Linn.	Bombacaceae	Burugu	Frequent
Borreria articularis (Linn.f.) F.N. Williams	Rubiaceae	Madanagranthi	Frequent
Boswellia serrata Roxb.	Burseraceae	Parangisambrani	Abundant in and around D. Bhimavaram
Brassica juncea (Linn.) Czern. & Coss.	Brassicaceae	Avalu	Cultivated
Bryophyllum pinnatum (Lam.) Kurz	Crassulaceae	Ranapala	Frequent
Butea monosperma (Lam.) Kuntze	Fabaceae	Moduga	Frequent
Butea superba Roxb.	Fabaceae	Tigamoduga	Frequent
Caesalpinia crista Linn.	Caesalpiniaceae	Gachchakaya	Frequent
Cailliea cinerea Macb.	Mimisaceae	Venuturu	Frequent
Cajanus cajan (Linn.) Millsp.	Fabaceae	Kandulu	Cultivated
Calophyllum inophyllum Linn.	Clusiaceae	Ponna	Frequent
Calotropis gigantea (Linn.) R.Br. ex Ait.	Asclepiadaceae	Jilledu	Abundant
Calotropis procera (Ait.) R.Br.	Asclepiadaceae	Jilledu	Abundant
Canavalia virosa (Roxb.) Wr. & Arn.	Fabaceae	Advi tamma	Frequent
Capparis zeylanica Linn.	Capparidaceae	Adonda	Frequent
Capsicum frutescens Linn.	Solanaceae	Mirapa	Cultivated
Cardiospermum halicacabum Linn.	Sapindaceae	Buddakakara	Frequent
Carica papaya Linn.	Caricaceae	Boppayi	Cultivated
Carissa carandas Linn.	Apocynaceae	Vaka	Frequent
Casearia elliptica Willd.	Flacourtiaceae	Chilakaduddi	Frequent
Cassia alata Linn.	Caesalpiniaceae	Nelatangedu	Frequent
Cassia auriculata Linn.	Caesalpiniaceae	Konda tangedu	Frequent
Cassia fistula Linn.	Caesalpiniaceae	Rela	Frequent
Cassia occidentalis Linn.	Caesalpiniaceae	Kasinda	Abundant
Cassia tora Linn.	Caesalpiniaceae	Tantemu	Abundant

Cassytha filiformis Linn.	Lauraceae	Nulitega	Not frequent
Catharanthus pusillus G.Don.	Apocynaceae		Frequent in cultivated fields
Catharanthus roseus (Linn.) G. Don.	Apocynaceae	Billaganneru	Cultivated
Celastrus paniculatus Willd.	Calastraceae	Malkangini	Frequent
Celosia argentea Linn.	Amaranthaceae	Gurugu	Abundant in Cultivated fields
Centella asiatica (Linn.) Urban.	Apiaceae	Sarswatiaku	Abundant
Chloroxylon swietenia DC.	Rutaceae	Billudu	Frequent
Cicer arietinum Linn.	Fabaceae	Sanagalu	Cultivated
Cissampelos pareira Linn.	Menispermaceae	Adavibankatiga	Frequent
Cissus quadrangularis Linn.	Vitaceae	Nalleru	Abundant
Citrullus colocynthis Schrad.	Cucurbitaceae	Etipuchcha	Frequent in sandy soils
Citrus limon (Linn.) Burm.f.	Rutaceae	Nimma	Cultivated
Clematis gouriana Roxb.	Ranunculaceae		Not frequent
Cleome gynandra Linn.	Capparidaceae	Vaminta	Abundant
Cleome viscosa Linn.	Capparidaceae	Kukkavaminta	Abundant
Clerodendrum inerme (Linn.) Gaertn.	Verbenaceae	Anjali	Frequent in costal areas
Clerodendrum multiflorum (Burm.f.) Kuntze	Verbenaceae		Frequent
Coccinia grandis (Linn.) Voigt	Cucurbitaceae	Donda	Cultivated
Cocculus hirsutus (Linn.) Diels	Menispermaceae	Dusaritige	Frequent
Coffea arabica Linn.	Rubiaceae	Coffee	Cultivated in Maredumilli area
Coleus ambonicus Lour.	Lamiaceae	Vamaku	Cultivated
Cordia dichotoma Forst.f.	Boraginaceae	Nakkera	Frequent
Coriandrum sativum Linn.	Apiaceae	Dhaniyalu	Cultivated
Costus speciosus (Koeing) Sm.	Zingiberaceae	Chengalvakostu	Abundant
Crataeva nurvala Buch. - Ham.	Capparidaceae	Nuruvarahalu	Not Frequent
Crassa cretica Linn.	Convolvulaceae	Uppusanaga	Abundant after harvesting
Crotalaria laburnifolia Linn.	Febaceae	Peddagilagicha	Cultivated
Crotalaria verrucosa Linn.	Fabaceae		Frequent
Croton bonplandianum Baill.	Euphorbiaceae	Galivanamokka	Abundant
Cucumis agrastis Linn.	Cucurbitaceae	Pipara	Not Frequent
Curculigo orchiodes Gaertn.	Hypoxidaceae	Nelatadi	Abundant in forest area
Curcuma longa Linn.	Zingiberaceae	Pasupu	Cultivated
Cuscuta chinensis Lam.	Convolvulaceae	Bangarutige	Abundant on pulse crops
Cyamopsis tetragonoloba (Linn.) Taub.	Fabaceae	Goruchikkudu	Cultivated
Cymbopogon citratus Stapf.	Poaceae	Nimmagaddi	Cultivated
Cynodon dactylon Pers.	Poaceae	Garikagaddi	Abundant
Cyperus rotundus Linn.	Cyperaceae	Tungamustalu	Abundant
Dalbergia sissoo Roxb.	Fabaceae	Egisa	Frequent
Datura innoxia Mill.	Solanaceae	Ummetta	Frequent
Datura metel Linn.	Solanaceae	Ummetta	Frequent

Daucus carota Linn.	Apiaceae	Carrot	Cultivated
Dendrophthoe falcata (Linn. f.) Ettingshansen	Loranthaceae	Badanika	Frequent
Desmodium gangeticum DC.	Fabaceae	Gitanaram	Frequent
Desmodium triflorum DC.	Fabaceae	Muntamandu	Frequent
Digera alternifolia Asch.	Amaranthaceae	Chenchalikura	Abundant
Diospyros virginiana Linn.	Ebenaceae	Tumukiaku	Abundant
Dodonaea viscosa Linn.	Sapindaceae		Frequent
Dolichos biflorus Linn.	Fabaceae	Ulavalu	Cultivated
Drimia indica (Roxb.) Jessop	Liliaceae	Kondaulli	Abundant in forest area
Eclipta alba (Linn.) Hassk.	Asteraceae	Guntagalagara	Abundant
Elephantopus scaber Linn.	Asteraceae	Kukkapogaku	Frequent
Emblica officinalis Gaertn.	Euphorbiaceae	Usiri	Frequent
Emilia sonchifolia DC.	Asteraceae		Frequent
Ervatamia divaricata (Linn.) Alston	Apocynaceae	Nandivardanam	Cultivated
Erythrina variegata Linn.	Fabaceae	Badita	Frequent
Eucalyptus globulus Labill.	Myrtaceae	Eucalyptus	Cultivated
Euphorbia hirta Linn.	Euphorbiaceae	Reddivarinanubalu	Frequent
Euphorbia tirucalli Linn.	Euphorbiaceae	Chendu	Frequent
Evolvulus alsinoides Linn.	Convolvulaceae	Vishnukrantam	Frequent
Feronia limonia (Linn.) Swingle	Rutaceae	Velaga	Frequent
Ficus benghalensis Linn.	Moraceae	Marri	Frequent
Ficus religiosa Linn.	Moraceae	Ravi	Frequent
Ficus retusa Linn.	Moraceae	Juvvi	Frequent
Foeniculum vulgare Mill.	Apiaceae	Sopu	Cultivated
Gisekia pharnaceoides Linn.	Aizoaceae	Issakadantikuru	Frequent
Gloriosa superba Linn.	Liliaceae	Nabhi	Frequent
Gmelina arborea Roxb.	Verbenaceae	Gummadi	Frequent
Grangea maderaspatana Poir.	Asteraceae	Mustaru	Abundant
Gymnema sylvestre R. Br.	Asclepiadaceae	Podapatri	Not Frequent
Helianthus annus Linn.	Asteraceae	Proddutirugudu	Cultivated
Helicteres isora Linn.	Sterculiaceae	Gubatada	Frequent
Heliotropium indicum Linn.	Boraginaceae	Nagadanti	Abundant
Hemidesmus indicus R. Br.	Asclepiadaceae	Sugandipala	Frequent
Hibiscus rosa-sinensis Linn.	Malvaceae	Mandara	Cultivated
Holarrhena antidysenterica (Linn.) Wall.	Apocynaceae	Kodisapala	Abundant in forest area
Holoptelea integrifolia Planch.	Ulmaceae	Nemalichettu	Frequent
Hugonia mystax Linn.	Linaceae	Kakiburra	Not Frequent
Hybanthus enneaspermus (Linn.) F.Muell.	Violaceae	Ratnapurusha	Frequent
Hydrolea zeylanica Vahl	Hydrophyllaceae		Frequent

Hyptis suaveolens Poit.	Lamiaceae		Frequent
Ichnocarpus frutescens R.Br.	Apocynaceae	Palatiga	Frequent
Imperata cylindrica Beauv.	Poaceae	Dharbagaddi	Abundant
Indigofera enneaphylla Linn.	Fabaceae	Arrapalleru	Abundant
Ipomoea pes-caprae (Linn.) Sweet	Convolvulaceae	Chevulapillitige	Frequent
Ipomoea pes-tigridis Linn.	Convolvulaceae	Kemamadugu	Frequent
Ipomoea quamoclit Linn.	Convolvulaceae	Kasiratnalu	Ornamental
Jatropha curcas Linn.	Euphorbiaceae	Adavinepalam	Frequent
Jatropha gossypifolia Linn.	Euphorbiaceae	Nepalam	Frequent
Justicia gendarussa Burm. f.	Acanthaceae	Nelavavili	Frequent
Justicia procumbens Linn.	Acanthaceae		Abundant
Lawsonia inermis Linn.	Lythraceae	Gorinta	Cultivated
Leonotis nepetaefolia R. Br.	Lamiaceae	Ranabheri	Not Frequent
Leptadenia reticulata Wight & Arn.	Asclepiadaceae	Mukkutummudu	Frequent
Leucas aspera Spreng.	Lamiaceae	Tummi	Frequent
Leucas cephalotes Spreng.	Lamiaceae	Tummi	Frequent
Luffa acultangula var. amara (Roxb.) C.B.Clarke	Cucurbitaceae	Adavibira	Not Frequent
Lygodium flexuosum (Linn.) Sw.	Schizaeaceae		Frequent
Madhuca indica J.F. Gmel.	Sapotaceae	Ippa	Not Frequent
Mallotus philippensis Muell.-Arg.	Euphorbiaceae	Sinduri	Frequent
Mangifera indica Linn.	Anacardiaceae	Mamidi	Frequent
Martynia annua Linn.	Martyniaceae	Telukondokaya	Frequent
Melia azedarach Linn.	Meliaceae	Turakavepa	Frequent
Mentha arvensis Linn.	Lamiaceae	Pudina	Cultivated
Merremia emarginata (Burm. f.) Hallier f.	Convolvulaceae	Elakachevi	Frequent
Merremia tridentata (Linn.) Hallier f.	Convolvulaceae		Frequent
Michelia champaca Linn.	Magnoliaceae	Champakam	Cultivated
Mimosa pudica Linn.	Mimosaceae	Attipatti	Frequent
Mimusops elengi Linn.	Sapotaceae	Pogada	Cultivated
Mirabilis jalapa Linn.	Nyctaginaceae	Chandrakantam	Cultivated
Momordica charantia Linn.	Cucurbitaceae	Kakara	Cultivated
Momordica dioica Roxb. ex Willd.	Cucurbitaceae	Agakara	Frequent
Moringa oleifera Lam.	Moringaceae	Mulaga	Cultivated
Mucuna monosperma DC.	Fabaceae	Peddadulagondi	Not Frequent
Mucuna prurita Hook.	Fabaceae	Dulagondi	Abundant
Murraya koenigii (Linn.) Spreng.	Rutaceae	Karivepaku	Frequent in forest and Cultivated
Nelumbo nucifera Gaertn.	Nymphaeaceae	Kaluva	Frequent
Nerium indicum Mill.	Apocynaceae	Ganneru	Frequent

Nicotiana tabacum Linn.	Solanaceae	Pogaku	Cultivated
Nyctanthes arbor-tristis Linn.	Oleaceae	Devakancham	Abundant in and around Rayapalli forest area
Nymphaea nouchali Burm.f.	Nymphaeaceae	Tamara	Frequent
Ocimum basilicum Linn.	Lamiaceae	Rudrajada	Frequent
Ocimum sanctum Linn.	Lamiaceae	Tulasi	Cultivated
Operculina turpethum (Linn.) Silva Manso	Convolvulaceae	Tegada	Not frequent
Ophiorrhiza mungos Linn.	Rubiaceae	Sarpakshi	Not frequent
Opuntia dillenii Haw.	Cactaceae	Brahmajemudu	Frequent
Oroxylum indicum Vent.	Bignoniaceae	Pampini	Frequent
Oxalis corniculata Linn.	Oxalidaceae	Pulichinta	Frequent
Oxystelma secamona (Linn.) Karst.	Asclepiadaceae	Dudipala	Frequent
Pandanus odoratissimus Linn. f.	Pandanaceae	Mogali	Frequent along seashore
Passiflora foetida Linn.	Passifloraceae	Tellajumiki	Frequent
Pavetta indica Linn.	Rubiaceae	Papita	Abundant
Pavonia zeylanica Cav.	Malvaceae	Chirymuttava pulagam	Frequent
Pedalium murex Linn.	Pedaliaceae	Peddapalleru	Frequent
Pentapetes phoenicea Linn.	Sterculiaceae	Makinachettu	Frequent
Pergularia daemia (Forsk.) Chiov.	Asclepiadaceae	Dushtaputiga	Frequent
Phyla nodiflora (Linn.) E. Greene	Verbenaceae	Neetpippali	Frequent
Phyllanthus amarus Linn.	Euphorbiaceae	Nelausiri	Abundant
Piper betle Linn.	Piperaceae	Tamalapaku	Cultivated
Piper nigrum Linn.	Piperaceae	Miriyalu	Cultivated in Maredumilli
Pisonia aculeata Linn.	Nyctaginaceae	Pisangi	Frequent
Plumbago indica Linn.	Plumbaginaceae	Errachitramulamu	Rare
Plumbago zeylanica Linn.	Plumbaginaceae	Chitramulamu	Frequent
Plumeria acuminata Ait.	Apocynaceae	Nuruvarahalu	Ornamental
Polycarpae corymbosa Lam.	Caryophyllaceae	Bommasari	Frequent
Pongamia pinnata Pierre	Fabaceae	Ganugu	Avenue tree
Portulaca oleracea Linn.	Portulacaceae	Peddpayalikura	Frequent
Portulaca quadrifida Linn.	Portulacaceae	Payalikura	Frequent
Prosopis cineraria Druce	Mimosaceae	Jammi	Frequent
Psoralea corylifolia Linn.	Fabaceae	Bavanchalu	Cultivated
Pueraria tuberosa DC.	Fabaceae	Darigummadi	Frequent
Punica granatum Linn.	Punicaceae	Danimma	Cultivated
Randia spinosa Poir.	Rubiaceae	Manga	Frequent
Rauvolfia serpentina Benth. ex Kurz	Apocynaceae	Patalagarudi	Rare, found in Mangampadu & Maredumilli
Ricinus communis Linn.	Euphorbiaceae	Amadamu	Cultivated
Rubia cordifolia Linn.	Rubiaceae	Manjista	Rare
Saccharum spontaneum Linn.	Poaceae	Dharba	Abundant

Santalum album Linn.	Santalaceae	Chandanam	Cultivated by forest department
Saraca asoca (Roxb.) de Wilde	Caesalpiniaceae	Ashokamu	Ornamental
Scindapsus officinalis Schott	Araceae	Gajapippalu	Not common
Scoparia dulcis Linn.	Scrophulariaceae		Frequent
Semecarpus anacardium Linn.f.	Anacardiaceae	Nallajidi	Frequent
Sesamum indicum Linn.	Pedaliaceae	Nuvvulu	Cultivated
Sesbania grandiflora Pers.	Fabaceae	Avesi	Cultivated
Sida cordifolia Linn.	Malvaceae	Atibala	Abundant
Smilax ovalifolia Roxb.	Liliaceae	Konda tamara	Not common
Solanum nigrum Linn.	Solanaceae	Kamanchi	Frequent
Solanum surattense Burm.f.	Solanaceae	Nelamulaka	Frequent
Solanum torvum Sw.	Solanaceae	Usti	Frequent
Solanum trilobatum Linn.	Solanaceae	Vucchinta	Frequent
Soymida febrifuga A.Juss	Meliaceae	Somida	Common in Addatigala mandalam
Sphaeranthus indicus Linn.	Asteraceae	Bodataram	Frequent
Sterculia urens Roxb.	Sterculiaceae	Kovila	Frequent
Strychnos nux-vomica Linn.	Loganiaceae	Vishamusthi	Frequent
Strychnos potatorum Linn.	Loganiaceae	Indupa, Chilla	Frequent
Tamarindus indica Linn.	Caesalpiniaceae	Chinta	Abundant
Tectona grandis Linn.f.	Verbenaceae	Teku	Cultivated by forest department
Tephrosia purpurea Pers.	Fabaceae	Vempali	Frequent
Tephrosia villosa Pers.	Fabaceae	Nuguvempali	Frequent
Terminalia arjuna (Roxb.) Wight & Arn.	Combretaceae	Maddi	Frequent
Terminalia bellirica Roxb.	Conbretaceae	Tani	Frequent
Terminalia chebula Retz.	Combretaceae	Karaka	Frequent
Thespesia populnea Soland. ex Correa	Malvaceae	Gangaravi	Frequent
Thevetia peruviana (Pers.) Merrill	Apocynaceae	Ganneru	Frequent
Tiliacora acuminata Hook.f.&Thoms	Menispermaceae	Kappatiga	Frequent
Tinospora cordifolia (Willd.) Miers ex Hook.f.	Menispermaceae	Tippatiga	Frequent
Trachyspermum ammi (Linn.) Sprague	Apiaceae	Vamu	Cultivated
Tragia involucrata Linn.	Euphorbiaceae	Duradagondi	Frequent
Trianthema decandra Linn.	Aizoaceae	Galijeru	Frequent
Trianthema portulacastrum Linn.	Aizoaceae	Ambatimadu	Frequent
Tribulus terrestris Linn.	Zygophyllaceae	Chinapalleru	Abundant
Tridax procumbens Linn.	Asteraceae	Gaddichamanti	Frequent

Trigonella foenum-graecum Linn.	Fabaceae	Menthulu	Cultivated
Tylophora indica (Burm.f.) Merrill	Asclepiadaceae	Kukkapala	Frequent
Tylophora tenuis Blume	Asclepiadaceae	Pelusaku	Common in upland
Urena lobata Linn.	Malvaceae	Peddibenda	Frequent
Vallaris solanacea Kuntze	Apocynaceae	Malathi	Cultivated
Vernonia cinerea Less.	Asteraceae	Sahadevi	Abundant
Vetiveria zizanioides (Linn.) Nash	Poaceae	Vattivellu	Frequent
Vigna mungo (Linn.) Hepper	Fabaceae	Minumulu	Cultivated
Vigna trilobata (Linn.) Verdcourt	Fabaceae	Pillipesara	Cultivated
Viscum monoicum Roxb. ex DC.	Viscaceae	Badanika	Frequent
Vitex negundo Linn.	Verbenaceae	Vavili	Frequent
Withania somnifera Dunal.	Solanaceae	Aswagandhi	Not common
Woodfordia fruticosa Kurz	Lythraceae	Dhataki	Not common
Wrightia tinctoria R.Br.	Apocynaceae	Ankudu	Abundant in forest area
Xanthium strumarium Linn.	Asteraceae	Marulamatangi	Frequent
Zingiber officinale Rosc.	Zingiberaceae	Allamu	Cultivated
Ziziphus mauritiana Lam.	Rhamnaceae	Regu	Frequent
Ziziphus oenoplia Mill.	Rhamnaceae	Pariki	Frequent

The conduct of bath renders pleasure to mind and drives away the bad dreams. It is the prior cause of cleanliness, which removes all bodily impurities and increases the glory, gives lustre to body, annihilates foes and stimulates the sexual desire. It is attractive to ladies and pacifies fatigue. These are the ten qualities of a bath.

-Chanakyarajaneeti

Aryavaidyan Vol. 8 No. 4 May 1995 Pages 198 - 200

SEDATIVE AND TRANQUILLIZING PROPERTIES OF MEDHYA DRUGS -A PHARMACODYNAMIC CONCEPT

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Abstract

Use of Medhya drugs for the treatment of mental disorders plays a great role in the Indian system of medicine. In the texts of Ayurveda, many drugs have been mentioned to improve the Medha, e.g., Ashwagandha, Bramhi, Shankhapushpi, Jatamansi, Bala, Jyotishmati, Guduchi, etc. These drugs have also been mentioned as Rasayana (rejuvenative and restorative). The beneficial effects of these drugs for the treatment of psychological and psychosomatic disorders suggest that they might be having sedative and tranquillizing properties. Recent studies and researches done so far also suggest that Medhya drugs as mentioned in Ayurvedic texts, keep the mind calm and cool, reduce anxiety and apprehension thus producing sedation and tranquility.

Key Words: Medhya, Dhi, Dhriti, Smriti, Unmada, Apasmara, Atatwabhinivesha, Rasayana, Psychotropic and Psychosomatic.

In the Ayurvedic system of medicine, Medhya drugs have been widely used either alone or in combination for the treatment of psychic disorders. Besides they have been used for the treatment of the normal persons as Rasayana (rejuvenative and restorative) for improving the functions of Medha including Dhi (perception), Dhriti (to fix the mind) and Smriti (memory). These drugs form the basic constituent of the medicine suggested for the treatment of major mental disorders like Unmada (insanity), Apasmara (epilepsy) and Atatwabhinivesha (enfeebled intelligence) etc. The indication of Medhya drugs suggest the possibility of these drugs being tranquillizers and antianxiety in action. In Ayurvedic treatise, such drugs are described as Medhya and as per scientific investigations they have shown varying degree of psychotropic actions.

The nature of the use of Medhya drugs as advocated in Ayurvedic literature indicate that these drugs might be possessing

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psychotropic action, especially anti-anxiety. Many references have been found regarding the use of Medhya drugs for the treatment of psychological and psychosomatic disorders. Though these drugs produce other beneficial effects on the body, the mental effect of relieving anxiety (Chinta) predominates.

The pharmacodynamic picture of most of the drugs mentioned as Medhya have been listed in Table. After analysing, these drugs seem to be predominantly Sheeta Virya, Madhura and Tikta Rasa. The highest incidence of Snigdha and Laghu Guna is observed in these drugs. But the majority of the drugs show a mixed picture and so it is difficult to interpret the effect of all Medhya drugs on one uniform principle on the basis of their pharmacological properties, described in Ayurvedic texts. Most probably these drugs exert their Medhya effect through different modes in the same way as different drugs act at different levels such as Rasa, Agni and Shrotas. However, the greater incidence of Madhura Rasa, Sheeta Virya, Snigdha Guna and Madhura Vipaka as found in Medhya drugs might be producing preponderence of Kaphaja Prabhava and similar effects on persons consuming such drugs. In principle, such drugs are restorative and rejuvenative and should sedate the mind due to the predominance of Kaphaja Prabhava.

Though this interpretation holds good for the majority of Medhya drugs, quite a few of such drugs possess varied pharmacodynamic properties and their Medhya Prabhava cannot be interpreted so easily. Yet according to a broad generalised principle, the Medhya drugs may be considered to possess sedative and/or tranquillizing effect.

The argument is further supported by the specific use of Medhya drugs for the treatment of psychological and psychosomatic disorder, where the real object of therapy is to achieve sedation or tranquility of the mind. The recent researches done so far on Ashwagandha, Bramhi, Shankhapushpi, Jatamansi and Vacha etc. also support the anti-anxiety and sedative properties of Medhya drugs.

The experimental and clinical trials of these drugs also suggest their utility in the field of Sanjnaharana (anaesthesia). The results obtained reveal that Medhya drugs have anti-anxiety and sedative properties. The above discussion reveals that Medhya drugs are Vatashamaka and Kaphaja in nature. Due to Kaphaja Prabhava they improve the Medha (Dhi, Dhriti and Smriti) in the normal person and cure the psychosomatic and psychic disorders of a diseased person. Vatashamaka properties of the Medhya drugs are helpful to keep mind calm and reduce anxiety and apprehension.

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TABLE

Pharmacodynamic Properties of Medhya Drugs

Sl. No.	Name of the Drug	Rasa	Guna	Virya	Vipaka
1.	Aparajita - Clitorea ternatea	C.T.M.	G	U	C
2.	Ashwagandha - Withania somnifera	T.K.M.	L.S.	U	M
3.	Bhallataka - Semecarpus anacardium	M.T.	L.S.Ti	U	M
4.	Bala - Sida cordifolia	T.C.K.	R	U	C
5.	Bramhi - Bacopa monnieri	T.K.M.	L	Si	M
6.	Dadima - Punica granatum	M.K.A.	L.S.	U	M
7.	Dugdha - Cow milk	M	G.S.Md.P	Si	M
8.	Gambhari - Gmelina arborea	T.K.M.	G	U	C
9.	Ghrita - Cow ghee	A.M.	G.S.	Si	M
10.	Guduchi - Tinospora cordifolia	C.T.K.	L	U	M
11.	Haritaki - Terminalia chebula	M.A.C.T.K.	L.R.	U	M
12.	Jatamansi - Nardostachys jatamansi	T.K.M.	L.S.Ti	Si	C
13.	Jyotishmati - Celastrus paniculata	C.T.	Ti.S.	Si	C
14.	Kadambapushpa - Sphaeranthus indicus	C.T.K.	L.R.	Si	C
15.	Mandukaparni - Hydrocotyle asciatica	T.K.M.	L.Sa	Si	M
16.	Madhu - Bee honey	M.K.	L.R.P.	Si	M
17.	Navaneeta - Milk cream	M.K.	L.S.	Si	M
18.	Pippali - Piper liongum	C	L.S.Ti	Si	M
19.	Sarpagandha - Rauvolfia serpentina	C.T.K.	R.	U	C
20.	Shankhapushpi - Convolvulus pluricaulis	K.C.T.	S.P.	Si	M
21.	Suvarna - Gold	M.K.	L.S.	Si	M
22.	Shatavari - Asparagus racemosus	M.T.	G.S.	Si	M
23.	Shwetavalguja - Psoralea corylifolia	M.T.	R	Si	C
24.	Vacha - Acorus calamus	T.C.	L.Ti	U	C
25.	Yasthimadhu - Glycyrrhiza glabra	M	G	Si	M

A - Amla
C - Catu
G - Guru
K - Kashaya
L - Laghu
M - Madhura
Md - Mridu
P - Pichhila
R - Ruksha
S - Snigdha
Si - Sheeta
Sa - Sara
T - Tikta
Ti - Tikshna
U - Ushna

Aryavaidyan Vol. 8 No. 4 May 1995 Pages 201 - 205

STANDARDISATION OF AYURVEDIC DRUGS

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The Ayurvedic materia medica mainly depends on medicinal plants numbering 600 to 700 (based on Brihattrayee). For the present day, standard drugs are needed because the Gurukulasampradaya of teaching has vanished. For standard drugs the following are to be considered. These are the controversy of raw drugs, usage of certain drugs based on the original texts and formulations for various clinical applications. In this paper identification of drugs according to Ayurvedic methods ie. the synonyms, uses and actions, the place of growth, shape and type of leaves and flowers, parts used with examples, proper usage of drugs like Draksha, Bilwa, Hareetaki etc., some formulations in relation to the actual clinical usage like Nasya, Snehapana and Abhyanga are discussed.

Introduction:

The Ayurvedic materia medica mainly depends on medicinal plants numbering six hundred to seven hundred (Sastry 1968, 1970; Gupta 1970). This pertains to the Vedic and Samhitha periods. The above number was sufficient during that period because the number of diseases were less compared to the present day. Gurukulasampradaya of teaching was in vogue at that time. Physicians were taught to identify the medicinal plants under natural conditions in the field. They were also taught the methods of collection, preservation and seasonal variations of plants used in medicines.

Under Gurukula teaching they were taught to prepare the medicines themselves. By such a study the physicians were aware of how to use a medicinal plant, parts of the drug and various types and Pakas of formulations for different therapeutic uses.

At present the quantity of medicine required has increased alarmingly. This necessitates indiscriminate collection of medicinal plants, use of spurious drugs and unseasonal collections. As a result, usage of substandard medicine has become the order of the day. This ultimately will pave the way to the degenaration of the Ayurvedic System as well. Moreover, pharmacies of the present day prepare most of the medicines according to their convenience. To overcome such problems and provide a solution, various aspects of medicinal preparations are to be studied. Studies like single drug collection, identification, season of collection, maturity of the plants and area from where the drugs are collected will be necessary. The altitude and climatic conditions and the methods in different

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types of preparations, the type of storage etc. keeping in view the Tridosha and Panchabhootha theory becomes essential.

Discussion:

Controversial Drug Theory:

The availability of genuine drugs is the first phase of the standardisation. Identification of the drug material is to be carried out within the framework of ancient literature. This should be based on Yukthi, Sruthi and Anubhava. For example in the case of the drug **prasarani** two different plant materials are in use at various places according to the availability and traditional practice (Nair, K.V. **et al** 1982, 1983, 1984). Few examples of such drugs are given in table No.1. It may be stated that those drugs sometimes belong to different botanical genera and are even from different families. These are observed by the physicians during their daily practice to obtain similar therapeutic efficacy. So they can be considered as potential source for an alternative drug. A detailed study of such drugs is highly necessary to find the genuine and the spurious among these to finalise the standardisation.

Proper usage:

In case of drugs like Hareetaki, the present day usage is not according to the directions given in Brihattrayee. In most formulations fruit pulp is only used in place of the entire fruit (personal observation). Hareetaki is a drug which contains five Rasas which are essential for its Tridosha Samana action. These five Rasas are present in the fruit as follows:

Pathyayah majjani svadur-
Snayvamamlo vyavasthitah |
Vrnte tiktastvachi Katu-
rashistha stuvaro rasah ||
(Chunekar & Pandey 1984)

The endo-carp and kernal is not in use and hence it is devoid of two main Rasas Madhura and Kashaya. Discarding any part (s) results in the loss of a particular Rasa which in turn adversely affects the curative property of the formulation / drug. Except in **Abhayarishta** and **Asmarinasaka Panaka** Hareetaki is recommended to be used as an entire fruit. In Rasayana Yogas mentioned in the Charakasamhita (Sastri, 1970) the entire fruit must be used for preparing the decoction first and the seeds should be discarded only subsequently. This results in the proper extraction of all Rasas at the time of preparation, e.g. Brahmarasayana. However, in certain preparations, the specific part to be used is mentioned (Gupta, 1970) for example:

Kapotavangaamulam va pibedekam
suradibhih |
Tatsidham va pibet ksheeram
vedanabhirupadrutah |
Hareetakyasthisiddham va sadhitam
va punarnavaih ||
(A.H. Ch. 11/33)

Here kernal and endocarp must be used in Asmarinasaka panaka for Asmarichikitsa. This indicates that the Asthi (endocarp - hard portion) of the fruit of Hareetaki is also used for medicinal purposes. Again in Arsaschikitsa mesocarp and pericarp alone are used in Abhayarishta (Gupta, 1970)

"Salilasya vahe paktwa prasthardham-abhayaatwacham.
(Ashtangahridaya Ch. 8/64 etc.)

There is a mention about the use of entire fruit (Acharya, 1980). "Pugadinam erandantanam phalam" (Susrutha Sutram 39/4 etc.). A similar study is required in drugs like Vibhitaki and Amalaki.

Identity of Certain Drugs

For certain drugs like Ela the actual Ayurvedic books are to be studied in detail. There are only two types of Ela mentioned, Sukshmela and Ela. Whereas now after

Nighantu period there is a new mention of Brihat Ela. A detailed study in this respect was carried out by the authors (Nair, K.V. **et al** 1984).

Time and Season of Collection:

It is essential to study the drug collection time, season and preservation etc. to obtain the maximum utility and therapeutic value. A modern phytochemical study will also help to assess the value and standards of drugs. Ayurveda mentions the following.

"Tatra Yani Kalajatanyupagata sampoorna pramana rasa beerya.....
(Charakam, Kalpam 1/11.)

The above Sloka indicates the maturity that the plants should have to posses the maximum active principles like Rasa, Guna, Veerya, Vipaka and Prabhava. Drugs destroyed by season, fire, water, wind and sunlight or by animals and insects should not be used. **Vasantha** and **Varsha Rthu** are mentioned as good times to collect branches and leaves, **Greeshma** and **Sisira** for the collection of roots; **Sarath Rthu** for twak (Bark) tubers, latex, heartwood and flowers and **Hemanta Rthu** for fruits. The only exemption is to collect fruits and flowers as and when available.

Preservation:

The drugs collected may be preserved in suitable containers. The rooms where the drugs are preserved should have proper ventilation. Fire, smoke, dust, animals like rats and quadrupeds should not be allowed to enter the room where drugs are preserved. Human dwelling and daily practice of meditation is a must in such rooms.

Formulations:

Specific Pakas and mode of preparations are mentioned in most of the formulations. For example an oil preparation with different Pakas like **Khara, Mrudu, Chikkana** are employed for specific conditions. **Mrudu paka** is useful in **Nasya, Chikkana Paka** in **Panam** (oral application) and **Vasthikarma** and **Kharapaka** is usedful in **Abhyanga** (external application). In most of the pharmacies only one **Paka** is carried out for all purposes. It is mostly **Kharapaka** to avoid fungal attack and for long term use. But in turn this has affected the actual/specific use of the medicine. The theory of **Panchabhuta** and **Tridosha** may be applied in detail to study the importance of Pakas in specific conditions.

Kwatha kalpana

Srtha, Seeta, Phanda, Choorna, Swarasa are the main types of **Kashaya.** Now the pharmacies prepare **Srtakashaya** in concentrated form with some chemical preservatives. They claim that this is done for the convenience of patients who cannot prepare **Kwatha** in their homes. The classical method is different. In it, the specific quantity of raw drug is added to sixteen times of water and reduced to one forth (1/4) filtered and used. In more concentrated forms certain **Bhutamsa** like **Agni, Vayu** etc. get deranged. Hence the particular **Rasa** (taste) of the **Kashaya** is changed and it produces a different action than expected from the decoction.

Conclusions:

From the above studies it is concluded that study of controversial drug, proper method of usage of drugs, classical identification of drugs, time and season of collection of the drugs; methods of preservation and preparations are highly necessary to fix standards of Ayurvedic drugs. These can be done with the combined work/effort of properly trained personnel of Ayurvedic, Botanical, Phytochemical and Pharmacological departments.

ACKNOWLEDGEMENT

The authors are thankful to the Director CCRAS for encouraging this work.

TABLE - I

Sl.No.	Name of drug	Accepted source/Botanical source	Alternative sources
1.	Agaru	**Aquilaria agallocha** (Thymeleaceae)	a. **Dysoxylum malabaricum** (Meliaceae)
2.	Bhunimba	**Swertia chirata** (Gentianaceae)	a. **Andrographis paniculata** (Acanthaceae)
3.	Daruharidra	**Berberis aristata** (Berberidaceae)	a. **Coscinium fenestratum** (Menispermaceae)
4.	Sankhapushpi	**Convolvulus pluricaulis** (Convolvulaceae)	a. **Clitoria ternatea** (Leguminaceae) b. **Evolvulus alsinoides** (Convolvulaceae)
5.	Rasna	**Pluchea lanceolata** (Asteraceae)	a. **Alpinia calcarata** (Zingiberaceae) b. **Alpinia galanga** (Zingiberaceae)
6.	Pashanabheda	**Aerva lanata** (Amaranthaceae)	a. **Rotula aquatica** (Boraginaceae) b. **Homonoia riparia** (Euphorbiaceae)
7.	Sariba	**Hemidesmus indicus** (Asclepiadaceae)	a. **Decalepis hamiltonii** b. **Cryptolepis buchanani** (Asclepiadaceae) c. **Ichnocarpus frutescens** (Apocynaceae)
8.	Sati	**Hedychium spicatum** (Zingiberaceae)	a. **Kaempferia galanga** (Zingiberaceae)
9.	Nagakesara	**Mesua ferrea** (Clusiaceae)	a. **Calophyllum inophyllum** (Clusiaceae) b. **Cinnamomum wightii** (Lauraceae)
10.	Priyangu	**Callicarpa macrophylla** (Verbenaceae)	a. **Zanthoxylum rhetsa** (Rutaceae) b. **Callicarpa tomentosa** (Verbenaceae)
11.	Vidari	**Pueraria tuberosa** (Fabaceae)	a. **Adenia hondala** (Passifloraceae) b. **Ipomoea paniculata** (Convolvulaceae) c. **Cycas circinalis** (Cyacadaceae)
12.	Prasarani	**Paederia foetida** (Rubiaceae)	a. **Merremia tridentata** (Convolvulaceae)
13.	Bharngi	**Clerodendrum serratum** (Verbenaceae)	a. **Pygmaeopremna herbacea** (Verbenaceae)
14.	Jivanti	**Leptadenia reticulata** (Asclepiadaceace)	a. **Holostemma rheedi** (Asclepiadaceae)
15.	Karkatasringi	**Pistacia integerrima** (Anacardiaceae)	a. **Terminalia chebula** (Galls) (Combretaceae)
16.	Murva	**Marsdenia tenacissima** (Asclepiadaceae)	a. **Chonemorpha macrophylla**

The reference for accepted source is based on Ayurvedic formulary of India, (1978) Part I, Govt. of India Publication, New Delhi.

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Inner security

A human being is a part of the whole, called by us 'Universe' a part limited in time and space. He experiences himself, his thoughts and feelings as something separated from the rest -- a kind of optical delusion of his consciousness. This delusion is a kind of a prison for us restricting us to our personal desires and to affection for a few persons nearest to us. Our task must be to free ourselves from this prison by widening our circle of compassion to embrace all living creatures and the whole nature in its beauty. Nobody is able to achieve this completely but the striving for such achievement is in itself a part of the liberation and a foundation for inner security.

Albert Einstein.

Aryavaidyan Vol. 8 No. 4 May 1995 Pages 206 - 211

RASAVAISESHIKA - 5

K. Raghavan Thirumulpad

Next Sannipatha is examined. There is no Sannipatha Prakrithi. There need not be Sannipatha vikara for various reasons, it is argued.

32. सन्निपाताप्रसिद्धिर्विरोधात् ।

विरोधात् As the Doshas contradict one another सन्निपाताप्रसिद्धिः भवति there cannot be Sannipatha with all the Doshas in excess.

Vatha is Seetha, Rooksha and Laghu. Pittha is Ushna, Snigdha and Laghu. Kapha is Snigdha, Seetha and Guru. Heat and cold are contrary to each other. Hence hot Pittha and cold Kapha cannot join together and act jointly to achieve a common purpose. Rookshatha and Snigdhatha are contradictory and nullify each other. So are Laghutha and Gurutha. So Laghu and Rooksha cannot join together to achieve something common with Kapha which is Snigdha and Vatha which is Laghu. So all the three Doshas together cannot have a common result, especially when they are in excess. Sannipatha is a condition when all the three Doshas with predominance of particular qualities are in excess.

33. अन्योन्यप्रशमनसामर्थ्यात् ।

अन्योन्यप्रशमनसामर्थ्यात् As they are able to control one another, with their contradictory qualities सन्निपाताप्रसिद्धिः there cannot be Sannipatha.

The Laghutha of Vatha can be controlled by the Gurutha of Kapha. Seethatha of Vatha and Kapha can be controlled by the Ushnatha of Pittha. In the same way, Kapha which is Snigdha can be controlled by Vatha which is Rooksha, and Pittha which is Ushna can be controlled by Vatha and Kapha which are cold. So these three Doshas in excess cannot bring about something common namely Sannipatha with the properties of all the three.

34. सर्वेषु सर्वसम्भवात् ॥

सर्वेषु रोगेषु In all diseases सर्वसम्भवात् as all the Doshas are vitiated सन्निपाताप्रसिद्धिः there need not be a separate condition with all the three Doshas predominating namely Sannipatha.

It is said in the texts that a Dosha vitiated, vitiates all the other Doshas also.

एकश्च दोषः कुपितः सर्वानेव प्रकोपयेत् । Hence all diseases will have all the Doshas vitiated नैकदोषास्ततो रोगाः there is no disease with a single Dosha. There are some of the conclusions arrived in various contexts. If one of the horses which draws a chariot becomes uncontrollable and runs amuck, then the other horses also will not be able to function properly, with the result that the other horses become irresponsible. This is an example how in a disease, started with the derangement of one Dosha, the

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other Doshas are also deranged and a condition of Sannipatha occurs. संसर्गः सन्निपातश्च तद्वित्रिक्षयकोपतः

When two Doshas are in agitation, it is Samsarga and when the three Dosha are in agitation, it is Sannipatha. The proper function of each Dosha is possible only when the other Doshas are also functioning properly.

35. यस्मिन् व्याधौ त्रयो दोषाः सन्निपतिताः भवन्ति स खलु सन्निपातः ॥

यस्मिन् व्याधौ In which disease त्रयः दोषाः सन्निपतिताः the three Doshas are agitated सः सन्निपातः खलु that disease indeed is Sannipatha.

Sannipatha is a condition in which the three Doshas are agitated. In every disease, as it is seen here, the three Doshas are agitated. Hence, it is not necessary to accept another condition of Sannipatha, in addition.

36. तथाप्युच्छ्येणेति चेत् न, यथोच्छ्रित इति वचनात् ।

तथापि Though it is so and all the Doshas are agitated in all diseases उच्छ्येण सन्निपातः इति चेत् न it cannot be taken granted if argued thus Sannipatha is a condition in which the Doshas are in excess. यथोच्छ्रिते दोषे इति वचनात् सन्निपाताप्रसिद्धिः

Because it is said that even in Sannipatha treatment has to be done in consideration with the Dosha in excess, so there need not be a particular condition of Sannipatha.

It is prescribed in the texts that even for Sannipatha, where all the three Doshas are agitated, the treatment has to be according to the Dosha in excess. सन्निपातकृतायां शिरसो रुजायां यथोच्छ्रिते दोषे प्रतिकुर्वीत In headache caused by Sannipatha Kopa, treatment has to be according to the order of excitement. Here it is clear that treatment is for Doshas, not for Sannipatha. So Sannipatha or Samsarga need not be accepted from the point of view of practical treatment. When we say Vathika etc. it means that Vatha etc. is predominant in the disease, and treatment has to be aimed at pacifying the particular Dosha. In Sannipatha also, treatment has to be for the most prominent of the Doshas. There need not be any differenciation between Ekadoshakopa and Thridoshakopa which is Sannipatha.

37. स्थानानभिधानात् रसतः प्रदेशतश्च ॥

रसतः प्रदेशतः च from the view of Rasa - taste and location स्थानानभिधानात् as position is not indicated in Sannipatha, सन्निपाताप्रसिद्धिः Sannipatha need not be accepted.

It is said that Kapha manifests in Madhurarasa and above the position of heart, Pittha in Amlarasa and between heart and navel and Vatha in Thiktharasa and under the navel. For Sannipatha, no such location is given in texts. So Sannipatha need not be accepted as a condition of the Doshas.

38. प्रचयप्रकोपकालस्य च ॥

प्रचयप्रकोपकालस्य च अनभिधानात् As the time of increase and excitement is not mentioned in the texts सन्निपाताप्रसिद्धिः Sannipatha need not be accepted.

Vatha is said to be increased in Greeshma and excited in Varsha, Pitha in Varsha and Sarad and Kapha in Sisira and Vasantha. For Sannipatha, no period is indicated. So Sannipatha need not be accepted as a particular condition of the Doshas.

These objections are answered with examples from texts (Sastra) and ordinary life (Loka).

39. सत्वरजस्तमसां कार्येण विरोधः प्रत्युक्तः ।

सत्वरजस्तमसां कार्येण with the effect of Sathwa, Rajas and Thamas विरोधः प्रत्युक्तः the objection of contradiction is answered.

Sathwa, Rajas and Thamas are the three Gunas of Prakrithi. The Jagath (universe) is manifested by the combination of the three Gunas. The combination is the cause and the Jagath is the effect. Sathwa

is pleasing (Sukhatmaka) Rajas is agitating (Duhkhatmaka) and Thamas in depressing (Mohatmaka). If these three with distinctly different qualities can join together to form Jagath the three Doshas with their different qualities can join together to form Sannipatha. This example can be appreciated only with a knowledge of Sankhyadarsana.

40. अपामग्नेर्मातरिश्वनश्च ॥

अपां अग्नेः मातरिश्वनः च कार्येण with the example of water, fire and air joining together to cause an effect namely lightning विरोधः प्रत्युक्तः the objection is answered.

Water, fire and air have different and opposing qualities, but these three join together to effect a single phenomenon viz. lightning. There are other examples as for eg. rain, sun and wind together improve crops.

41. महाभूतानां शुक्लशोणितयोश्च

महाभूतानां of the five elements which form the Dravya शुक्लशोणितयोः च and of the male and female gametes which join to form Garbha विरोधः प्रत्युक्तः the objection is answered.

The five elements have entirely different qualities but they join together to form Dravyas (items of food and medicine). So also Sukla and Arthava (Purusha Beeja and Sthree Beeja) with their different qualities join together to form the Garbha at the time of conception. So, the differences in qualities need not hinder the Doshas in joining together to form Sannipatha. Actually the Doshas with their different aspects co-operate to maintain health when conditions are conducive.

42. दूषणस्वभावात् परस्परबलाधानात् सर्वेषामुदीर्णत्वात् च ॥ दूषणस्वभावात् being naturally irritating परस्परबलाधानात् and mutually assisting in nature सर्वेषां उदीर्णत्वात् च and because all of them are excited दोषाः परस्परं न शमयन्ति the Doshas do not pacify each other.

दूषयति इति दोषः The Doshas are so called because they are exciting in nature. When excited, the Doshas excite each other and also the Dhathus, producing disease. When not deranged, they co-exist in the body, each performing its functions in the maintenance and promotion of health. When deranged the Doshas never act against one another. When all are irritated, as in Sannipatha, they only assist each other in function which at that time is the promotion of disease. It is the nature (Swabhava) of the Doshas to assist one another in health as well as in disease. Everything in the universe functions according to its Swabhava. Ayurveda has evolved as a science by understanding and making use of the fundamental principles of Swabhava. Swabhava is eternal and never deviates from its path.

As it is based on the principles of Swabhava, Ayurveda is considered to be eternal, without either beginning or end. Perhaps, the principles of Ayurveda were understood from experiences and experiments. But even before being understood scientifically, the universe was manifesting and functioning according to certain fundamental principles, which form the basis of the principles of Ayurveda. The quest of the Acharyas was to understand the principles according to which each and everything in the universe existed and functioned. Thus Doshas never act against or contradict each other.

43. सर्वेषु सर्वसम्भवो न तु सर्वैर्विकारोऽन्यत्र रोगसम्भवात् ॥ सर्वेषु रोगेषु in all diseases सर्वसम्भवः भवति the excitement of all the Doshas occurs रोगस्वभावात् अन्यत्र except where the disease condition indicates otherwise सर्वैः विकारः न भवति the dysfunction of the system does not occur with all the three Doshas.

The Doshas function naturally in co-operation only in a condition where all of them are balanced and keep to a rhythm (Samya). If any one of the Doshas is deranged, this is upset and the systemic

balance is disturbed. The predominant symptoms are of the excited Dosha and other Doshas present their disturbed symptoms. Digestion is the function of Pittha. Naturally if Pittha is excited digestion is excited with the result that the food is digested before time with extreme hunger. If Vatha is excited Pittha is not able to function properly and the result is that the balance of digestion is disturbed (Vishamagni). At times digestion is extreme and at other times it is poor, as unsteadiness is the characteristic of Vatha which is always vibrating. If Kapha is excited, the digestion is hindered as the causes of excitement of Kapha are against Pittha. Pittha is Theekshna, Kapha is Manda. Pittha is Ushna and Kapha is Seetha. So there is diminished digestion in Kaphakopa. In health, when all Doshas are in order, each can function naturally in co-operation with the other Doshas, producing symptoms of tranquility, equilibrium and well being.

44. तत्र सत्वरजस्तमोवृत्तिर्निदर्शनम् ॥

तत्र in this सत्वरजस्तमोवृत्तिः निदर्शनम् । the example is the functioning of the three Gunas Sathwa, Rajas and Thamas. The three Gunas, Sathwa, Rajas and Thamas co-exist in the mind. While Sathwa manifests as peace, the Rajas with its symptom of arrogance and Thamas with melancholy are in a dormant condition. But if Rajas or Thamas predominates arrogance or melancholy manifests, subduing the tranquility of Sathwa. Sathwa in control of Rajas and Thamas is the condition of health of the mind. If Rajas or Thamas predominates subduing Sathwa, it causes disease of the mind. Doshas also work in the same way. When any of the Doshas predominates, it functions in an abnormal way, preventing the other Doshas from functioning normally.

45. न विकारजन्म बलवताभिभवात्

बलवता दोषेण अभिभवात् Being subdued by the most irritated Dosha इतरयोः दोषयोः विकारजन्म न भवति no abnormal condition is produced by the other two Doshas.

In Sannipatha, treatment is prescribed to the most excited Dosha because usually the abnormality of that Dosha produces the predominating symptoms, the other Doshas which are irritated only assist the process.

So what is Sannipatha?

46. यत्र सर्वैः विकारः सः सन्निपातः ॥

यत्र In which disease सर्वैः दोषैः विकारः भवति symptoms are produced by all Doshas, which are irritated सः सन्निपातः भवति is called Sannipatha.

Even if only one Dosha is irritated, the other Doshas cannot function properly and as such seem to be irritated. But it is a only single Dosha disease, as the Nidana (cause), is the irritation of that Dosha only. A disease where the Nidana is irritation of two Doshas, and symptoms due to the irritation of two Doshas are present, it is Samsarga. A disease where there is Nidana for the irritation of all the three Doshas and symptoms of all three in irritation are present, is Sannipatha. All the symptoms of all the irritated Dosha may not be present at times as they are contradictory. The symptoms indicate the abnormality in the functions of the various systems of the body. Some irritated Dosha in the course of Samprapthi affects some systems particularly and the symptoms are characteristic of the irritated Dosha. Other Doshas agitate some other systems, and the specific symptoms are seen.

47. दृश्यते च वातरूपमिति समुच्चयात् ॥

वातरूपं च दृश्यते इति समुच्चयात् As it is said in the scriptures with a conjunction that the symptom of the irritated Vatha also is present. सन्निपाते सर्वैः विकारः भवति in Sannipatha disease with all the three agitated

Doshas manifests.

The conjunction (The word 'cha') denotes that in addition to Vatha, Pittha and Kapha also are agitated, and their particular symptoms are also present. In the texts various diseases with Sannipatha symptoms are explained thus निचयात् सर्वलक्षणः in the Sannipatha symptoms by all the Doshas present, सर्वात्मा सर्वलक्षणः Sannipatha is a condition when symptoms by all Doshas present. सङ्कीर्णः सन्निपातजः In the disease with Sannipatha, the symptoms of the three Doshas intermingle.

48. समुच्छ्रये सर्वैर्विकारदर्शनात् ॥

उच्छ्रये सति even if one Dosha may be more irritated सर्वैः विकारदर्शनात् if symptoms by all Doshas are manifest सन्निपातः एव भवति the disease is Sannipatha.

Of the three Doshas, one may be more agitated than another. But symptoms of agitation of all the Doshas will be seen in a Sannipatha disease. Sometimes all the Doshas may be equally agitated. These details can be understood by careful observation of symptoms.

49. विकारत्वात् सन्निपातस्य स्थानानभिधानः ।

विकारत्वात् as it is a condition of agitation सन्निपातस्य स्थानानभिधानः no particular location is indicated for Sannipatha.

Locations for Doshas are indicated when they are not agitated. When agitated Doshas start out of their normal locations कोपस्तून्मार्गगामिता Sannipatha is a condition when all the Doshas are agitated. They can be anywhere affecting any system or organ, indicating disease and no particular location is indicated.

50. स्वस्थवृत्तौ हि स्थानापदेशः

स्वस्थवृत्तौ हि it is in normal condition of the Doshas स्थानापदेशः particular location for particular Dosha is indicated.

Swasthavritti means normal condition indicating health. It is the condition of the Doshas in health. In that condition, the Doshas function from their head quarters. It is Sama Avastha (maintaining equilibrium) of the Doshas. The other condition of the Doshas is Chaya when it is in exaltation or being increased. Then also, the Dosha is in its location (चयो वृद्धिः स्वधाम्न्येव) It is agitated Kopa when it expands from its location and extends to other locations (कोपस्तून्मार्गगामिता)

Then the disease appears (Rogasambhava) Sannipatha is the condition when all the Doshas are increased and agitated and are out of their locations. It produces disease at a point where there is obstruction in the passage or where there is weakness in any organ and varies according to the location. (Sthanasamsraya) Disease can be produced anywhere in the body, so there is no specific location for Sannipatha.

51. करणदेशत्वात् कार्यस्य वातपित्तश्लेष्मस्थानएव सः।

कार्यस्य करणदेशत्वात् as the effect has to be where the cause is सः (Sannipatha) वातपित्तश्लेष्मस्थानः एव has the location of the agitated Doshas Vatha, Pittha and Kapha.

The material cause (Samavayi Karana) of Sannipatha is the three Doshas in agitation and the agitated Dosha occupying the position of Sannipatha. Sannipatha is a term which indicates the three agitated Doshas together. So there cannot be a separate position for Sannipatha.

52. कालः प्रायशः दृढमधिकारतश्च विभक्तः।
उपलभ्यते हि प्रचयः सर्वदा सर्वेषाम् ।

प्रायशः general कालः अधिकारतः दृढं विभक्तः च the time of the various states of Doshas are differentiated due to particular condition सर्वेषां प्रचयः सर्वदा उपलभ्यते हि the increase of the Doshas can always be experienced as and when suitable conditions occur. For Chaya, Kopa and Sama particular conditions are prescribed.

उष्णेन युक्ताः रूक्षाद्याः वायोः कुर्वन्ति सञ्चयम् ।
शीतेन कोपमुष्णेन शमं स्निग्धादयो गुणाः ॥
शीतेन युक्तास्तीक्ष्णाद्याश्चयं पित्तस्य कुर्वते ।
उष्णेन कोपं मन्दाद्याः शमं शीतोपसंहिताः ॥
शीतेन युक्ताः स्निग्धाद्याः कुर्वते श्लेष्मणश्चयम् ।
उष्णेन कोपं तेनैव गुणाः रूक्षादयः शमम् ॥

The increase of Vatha (Chaya) occurs due to its properties like Rooksha and others associated with Ushna. If these properties are associated with Seetha, Vatha is agitated. Here Ushna is the Veerya contrary to Vatha as the Seetha being its Veerya. Hence it controls Vatha from agitation even though the other properties increase it. Ushna in association with Snigdha and others pacify Vatha (Sama) Theekshna like properties in association with Seetha increase Pittha (Chaya). Associated with Ushna they agitate it (Kopa) and Seetha with Manda and others pacifies it (Sama). So Seetha is the Veerya against Pittha, Ushna being its Veerya. In the case of Kapha which is solidified, like ice, Seetha with Snigdha and other properties increases it, but Ushna with them agitates it but and Ushna with Rooksha and others pacifies it. Ushna is the Veerya contrary to Kapha, Seetha being its Veerya. These examples prove that Ushna and Seetha are called Veerya because they control the other qualities prohibiting Kopa. This is what is meant by Adhikara. This is the reason why Vatha is increased in Greeshma and agitated in Varsha and pacified is Sarad. But due to other conditions, any Dosha can be increased, agitated or pacified out of season. It shows that in season or out of season when there is Adhikara (particular condition) due to similar or dissimilar qualities, the Doshas are increased, agitated or pacified. So, for agitated Dosha no specific time or location can be attributed. It is only for Doshas which are in their normal circumstances, specific location and specific timing are attributed.

53. स्थानाभावः सर्वत्र सर्वेषामुपलब्धेः ।

सर्वेषां सर्वत्र उपलब्धेः As all Doshas are experienced every where they **स्थानाभावः** need not have particular location even in normal circumstances.

Breathing (Ucchvasa and Nisvasa) etc. which are said to be action of Vatha are seen in the location of Kapha (upper portion of the body, Urdhwakaya) smoothness (Snigdhathwa) etc. the properties of Kapha are experienced even in the location of Vatha (lower portion of the body, Adhahkaya) heat (Ushna) like properties of the Pittha are experienced in other portions also normally. So a particular position cannot and need not be ascribed to the Doshas. This is an argument (Poorvapaksha) to disprove that the Doshas have normal locations.

54. तन्मयत्वात् कायस्य ॥

कायस्य तन्मयत्वात् as the body is constituted of the Doshas **स्थानाभावः** there cannot be a particular location for the Doshas.

Doshas are constituents of the body. As constituents they have to be everywhere in the body. So it is illogical to attribute a special location to the Doshas. This is another argument.

55. सर्वसरत्ववचनात् च ॥

सर्वसरत्ववचनात् च As it is said that the Doshas are always moving through out the body through all passages (Srothas) **स्थानाभावः** there cannot be particular location for the Doshas.

The air is moving everywhere and no particular location can be ascribed to it. In the same way the Doshas are moving throughout the body, so no particular location can be ascribed to a particular Dosha. ●

Aryavaidyan Vol. 8 No. 4 May 1995 Pages 212 - 215

URINARY TRACT INFECTION & ITS MANAGEMENT BY BANGSHIL

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Introduction:

Urinary tract infection is a common disorder of all ages and both sexes. It is a world-wide problem. For the treatment of urinary tract infection, there are plenty of drugs but the problem of drug resistance and drug dependence and the toxic effect of long term use are common. The main aim of Ayurveda is to preserve positive health and to afford relief from disease.

The present investigation is aimed to study ayurvedic drugs which would control the infection and give symptomatic relief with least toxic side effects.

Materials and Methods:

The present study was conducted at Govt. Ayurvedic College & Hospital, Guwahati during the year 1994. The total number of cases studied was 35. Complete history was recorded in a specially prepared research proforma. Urine analysis, urine culture, plain X-Ray of KUB region were done in all cases before starting the clinical trial. 2 tabs. t.i.d. of Bangshil was given to each patient for three weeks. Weekly urine analysis and culture was done and clinical findings were noted. The final assessment of results was made at the end of three weeks. Out of the total of 35 patients 3 cases would not be followed for three weeks and 2 cases had renal stone. As such these were excluded from the final assessment of results. The composition of Bangshil as follows:

Shilajit (Asphaltum)	- 60mg
Guggulu (Balsamodendron mukul)	- 40mg
Svarnamakshika Bhasma (Ferri sulphuratum)	- 30mg
Kasisa Bhasma	- 60mg
Vanslochana (Bambu manna)	- 12mg
Banga Bhasma (Tin Bhasma)	- 80mg
Sandal wood oil (Chandana)	- 5.0mg
Chandraprabha	- 168mg

Bangshil is synergistic in action. It has antiinflammatory, antibacterial, antiseptic, astringent, diuretic, healing and cooling properties. It detoxicates the genitourinary tract and restores normal functions. It is said to raise body resistance to infection.

17 females and 13 males were included in study. The distribution as per age groups in shown in Table 1.

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Table 1

N - 30

Age group	Male	Female	Total	Percentage
10 - 20	-	2	2	6.7
21 - 30	3	7	10	33.0
31 - 40	4	4	8	26.0
41 - 50	2	1	3	10.0
51 - 60	2	2	4	13.3
61 - 70	2	1	3	10.0
above 70	-	-	-	-
	13	17	30	100.0

The symptoms seen are given in Table 2

Table 2

N - 30

1. Burning Micturition	28	93.33%
2. Frequency of micturition	21	70%
3. Urgency	18	60%
4. Dysuria	10	33.33%
5. Pain & Heaviness - Lower abdomen	10	33.33%
6. Fever	6	20%
7. Discharge per urethra	1	3.33%
8. Haematuria	3	10%

X-Ray reports: Plain X-Ray of KUB was normal in 94.28%. 3 patients had ureteric calculi and they have been excluded from the study.

Urine culture and organism detected in culture:

Urine culture was done in all the 30 patients. Culture was positive in 90% and negative in 10%.

Out of 30 patients 27 patients showed positive in urine culture and 3 patients were negative. Of these 27 patients 70.4% had E. coli, 14.8% had B. proteus 7.4% had Klebsiella and 3.7% showed pseudomonas and mixed were also seen. Details are given in table No. 3.

Table 3

Organisms of culture

Organism	No. of patients	Percentage
1. E. coli	19	70.40
2. B. proteus	4	14.80
3. Klebsiella	2	7.40
4. Pseudomonas	1	3.70
5. Mixed	1	3.70
	27	100.00

Urine analysis:

Urine analysis was done in all the 30 cases.Albumin was present in 20 patients (66.7%), pus cells in 24 patients (80%), epithelial cell in 18 patients (60%) and R.B.C. in 6 patients (20%). Details are given below in table No. 4.

Table 4

Urine analysis	No. of patients	Percentage
1. Albumin trace	20	66.7
2. Pus cells	24	80
3. Epithelial cells	18	60
4. R.B.C	6	20

Clinical Response:

Response to Bangshil was recorded after every seven days of treatment. There was marked improvement in combating major symptoms. There was marked relief in burning (85.7%) and frequency of micturition (90.5%) and other symptoms. Particularly there was a feeling of well being and the appetite improved. No untoward effects were observed with Bangshil treatment. Details are given in the table 5.

Table 5

Clinical response after 21 days

Symptoms	No. of cases before treatment	Relief cases	Per-centage	Non-relief cases	Per-centage
1. Burning micturition	28	24	85.7	4	14.3
2. Frequency of micturition	21	19	90.5	2	9.5
3. Dysuria	10	7	70	3	30
4. Urgency	18	15	83.33	3	16.7
5. Pain & heaviness – lower abdomen	10	8	80	2	20
6. Fever	6	4	66.7	2	33.3
7. Haematuria	3	2	66.7	1	33.3
8. Discharge per urethra	1	1	100	-	-
	97	80	82.5	17	17.5

Result of Bangshil therapy: culture

With Bangshil treatment B. proteus, Klebsiella, Pseudomonas were completely negative. Only 3 (15.8%) out of 19 cases of E coli did not respond. Details are given in Table No.6.

Table 6

Organism	No. before treatment	Negative (after treatment) Improve	Percentage	Positive (after treatment) No improvement	percentage
E. coli	19	16	84.2	3	15.8
B. proteus	4	4	100	-	-
Klebsiella	2	2	100	-	-
Pseudomonas	1	1	100	-	-
Mixed	1	1	100	-	-
	27	24	88.9	3	15.8

Discussion

Urinary tract infection is an universal problem. Bangshil treatment was tried as it was least toxic.

After discarding doubtful cases, 30 cases were treated and the results analysed Patients showed improvement after treatment with Bangshil. In this study, Bangshil has been quite effective against E. coli, B.proteus, Klebsiella, Pseudomonas and mixed infection which are seen commonly in urinary tract infection. Bacteriological cure was obtained is 88.9% and symptomatic relief is 82.5% of the case under trial. No. % toxic or side effects were noticed during the trial period.

Summary

1) Bangshil was tried in 30 cases of U.T.I., 13 were males and 17 were females.
2) 2 tablets of Bangshil was given thrice daily for 21 days.
3) Within the trial period symptomatic relief was 82.5% and bacteriological 88.9%.
4) No toxic or side effects were observed.
5) Bangshil is cheap and effective and can be used for long periods without toxic side effects.

Acknowledgement

We express our sincere thanks to the Principal, Govt. Ayurvedic College & Hospital, Guwahati for allowing us to carry out this trial.

Our thanks to Alarsin Pharmaceuticals, Bombay for their co-operation.

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On manners and laws....

Manners are of more importance than laws. Upon them, in a great measure the law depends. The law touches us but here and there, and now and then. Manners are what vex and soothe, corrupt or purify, exalt or debase, barbarize or refine us, by a constant, steady, uniform, insensible operation, like that of the air we breathe in.

Edmund Burke.

Aryavaidyan Vol. 8 No. 4 May 1995 Pages 216 - 219

EXCERPTS FROM CHIKITSAMANJARI - XIV
TREATMENT OF HIDHMA

Dr. P. Unnikrishnan

01

The aetiology, prodromal symptoms, classification and characterisation of Hidhma (hiccough) is the same as that of Swasa. In other words the factors are common to Hidhma and Swasa. Depending upon the gravity of symptoms they are graded into five viz. 1) Bhaktotbhava 2) Kshudra 3) Yamala 4) Mahathee and 5) Gambheera. On the prognostic aspect, the first two can be easily cured, the third with some effort. But the last two will not respond to treatment.

Irrigate the body with a mixture of ghee and oil; perform Shastikapinda Sweda [induction of Sweda with cooked and warm Navara rice (Oryza sativa Linn.)]. Puzhuku (Civet) and butter mixed together should be licked. Quill stem of Peacock or Candana (Santalum album Linn.) or Akil (Aquilaria agallocha Roxb.) finely powdered or ground well should be used to roll a cotton wick which is to be soaked in ghee and lit. The fumes arising from it should be used for Dhoomapana (smoking) by the mouth and nostrils. Flowers of Thumba (Leucas aspera Spreng.) are pounded and that is to be taken with milk. Teentamazhki (Biophytum sensitivum (Linn.) DC.) should be ground with butter and licked. Nasya shall be performed with breast milk or with Karpoora (Cinnamomum camphora (Linn.) Nees & Ebern).

02

Powdered pieces of an earthern pot, nocake, bran and Jeerakam (Cuminum cyminum Linn.) should be mixed with honey and consumed to cure all types of Hidhma.

Kothampala (seeds of Coriandum sativum Linn.) should be added to water, boiled and reduced to half. This liquid should be used to prepare a porridge. Powdered nocake and Jeerakam (Cuminum cyminum Linn.) should be added to it, at the time of consumption.

Gruel prepared from the decotion of Chukku (dry Zingiber officinale Rosc.) and Jeerakam (Cuminum cyminum Linn.) green gram and rice are to be cooked in the above liquid.

03

Decotion of the following raw drugs cures Hidhma. If necessary milk shall be added to it.

Vilwam - Aegle marmelos Linn. Corr.
Ikshu - Saccharum officinarum Linn.
Laja - Nocake

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Devadaru - Cedrus deodara (Roxb. ex D.Don) G.Don
Yavanee - Trachyspermum ammi (Linn.) Sprague
Ardraka - Zingiber officanale Rosc.
Dhanyaka - Coriandrum sativum Linn.
Mudga - Phaseolus mungo Linn.

04

Milk medicated with Dasamoola when consumed with the fine powder of the following drugs cures Hidhma.
Kolam - Ziziphus mauritiana Lamk.
Laja - Nocake
Anjanam - Antimony
Sitha - Cane sugar
Madhu - Honey

Dasamoola

Vilwa - Aegle marmelos (Linn.) Corr.
Kashmarya - Gmelina arborea Roxb.
Thakkaree - Premna integrifolia Linn.
Patala - Stereospermum tetragonum A. DC.
Dunduka - Oroxylum indicum (Linn.) Benth. ex Kurz

Brihateedwayam { Solanum xanthocarpum Linn. / Solanum indicum Linn.

Amsumathee dwayam { Desmodium gangeticum (Linn.) DC. / Pseudarthria viscida (Linn.) W. & Arn.

Gokshuram -Tribulus terrestris Linn.

05

Powdered Saindhava (Rock salt) mixed with lukewarm ghee and consumed cures Hidhma. Abhyanga (application of unctous materials such as oil, ghee etc. on the body) with medicated oils capable of curing vitiation of Vatha and Snehana and Swedana with medicines possessing Snighda property are also lauded.

06

Ashes of the quill stem of the peacock should be mixed with butter or honey and consumed alternatively. Magadhajadi Choornam (refer verse No. 16) shall be taken with butter or honey for the cure of Hidhma.

07

A decoction should be prepared from the following drugs.
Vilwam - Aegle marmelos (Linn.) Corr.
Ikshu - Saccharum officinarum Linn.
Laja - Nocake

Ashes derived from the quills of a porcupine should be mixed with the above Kashaya to roll pills in the size of a Vibheethaka (15g). Chronic Hidhmas will be relieved by the consumption of this preparation.

08

A medicated potion, prepared fom Ardraka (Zingiber officinale Rosc.) Lasuna (Allium sativum Linn.) and Dasamoola when consumed with milk cures Hidhma. (Dasamoola - cross refer Sloka 4)

09

Vilwa - Aegle marmelos (Linn.) Corr.
Laja - Nocake
Ardraka - Zingiber officinale Rosc.

The above drugs should be used to prepare a medicated potion which cures Hidhma and Chardi (vomiting).

Kanji prepared from split green gram is also recommended

10

When Hidhma and Swasa are found in the debilitated, secondary to chest injury, diarrhoea, Rakthapitha or Prameha (Diabetes), the line of treatment should be based on drugs having Madhura (sweet) rasa, Snigdha property and Seetha veerya.

11

Lukewarm soup prepared from Navara (Oryza sativa Linn.) rice shall be born on the chest. The same should be used for irrigation of the chest and neck. Warm Yamaka (a mixture of any two Snehas viz. -

ghee marrow, fat, oil) should also be used for irrigation.

12

The medicaments prescribed for the following diseases shall be exchanged or interchanged if necessary depending upon the stage of the disease and condition of the patient. They are Kasa, Swasa, Kshaya, Chhardi and Hidhma. The butter churned from milk medicated with Dasamoola, added with Civet, Nocake powder, sugar and Jeeraka (Cuminum cyminum) is to be taken.

13

Dried roots of Kshudrasimhee (Solanum xanthocarpum Schrad. & Wendl.) shall be finely powered, ground well and made into a paste with coconut water to which Puzhuku (Civet) shall also be added. This preparation cures Vatha.

14

The expressed juice from the cooked stem of Chura (Lagenaria siceraria Mol. Standly) as Drava, finely powered Jeeraka (Cuminum cyminum Linn.) as Kalka and ghee as Sneha. This medicated ghee shall be mixed with Puzhuku (Civet) and consumed for the cure of Vatha.

15

Vilwam Dhanyam Kurunthotti Kwatha detailed in the treatment of Swasa (cross refer 19) shall be consumed.

Withered leaves of Jack tree (Artocarpus integrifolia Linn.) should be crushed well and used to prepare a potion which should be taken as Drava, Deepyakam (Trachyspermum ammi (Linn.) Sprague) as Kalka and ghee as Sneha to prepare a medicated ghee which cures Vatha.

This ghee in small quantity (5 ml) shall also be added to the Kashaya 'Vilwam Dhanyam Kurunthotti' as Prakshepa. These six medications are effective for trauma, dyspnoea, emphysema and vitiated conditions of Vatha associated with Swasa and Hidhma.

16

The following Choorna cures Vami (vomiting) and Hikka. This Choorna is to be licked being mixed with honey.

Magadhajam - Piper longum Linn.
Dhathree - Emblica officinalis Linn.
Sundhee - dry Zingiber officinalis Rosc.
Madhukan - Glycyrrhiza glabra Linn.
Anjanam - Antimony
Gairikam - Red ochre
one part each
Jaggery
Laja - Nocake
six parts each

17

The following raw drugs finely powdered should be mixed with ghee and used for 'Dhoomapana' in Hikka.

Sarja - Shorea robusta Gaertn.
Himam - Santalum album Linn.
Guggulu - Commiphora mukul (Hook. ex Stocks) Engl.
Gosrimgam - Cow's horn
Ajasrimgam - Goat's horn
Gobala - Hairs of Cow
Gotwak - Cow's skin
Aja bala - Hairs of Cow
Aja twak - Goat's skin
Amaya - Saussurea lappa C.B. Clarke
Kusa - Arundo donax Linn.
Agaru - Aquilaria agallocha Roxb.
Barhipathram - Quills of Peacock

Here these drugs can be used with or without adding ghee. The following drugs may be mixed together with the above mentioned materials.

Naimalika - Musk
Madana - Randia dometorum (Retz.) Lam.
Tandula Khandana - Broken rice.

18-19

Medicated ghee prepared from the follo-

wing when consumed cures Vatha and Chhardi (Vomiting). This is also effective in trauma and hiccough.

Malar - Nocake
Jeerakam - Cuminum cyminum Linn.
Kshudra - Solanum xanthocarpum Linn.
Erandam - Ricinus communis Linn.
Bhadra - Aerva lanata Schultes
Pazhamplavila - Withered leaves of Artocarpus integrifolia Linn.
Thumbikkazhuthu - Lagenaria siceraria (Mol.) Standly as Drava
Jeeraka - Cuminum cyminum Linn. as Kalka and ghee as Sneha 20
Ela - Elettaria cardamomum Maton
Thol - Cinnamomum verum J.S. Presl.
Pachila - Cinnamomum tamala Nees & Eberm.
Munthiri - Vitis vinifera Linn.
Bala - Sida retusa Linn.
Athibala - Sida rhombifolia Linn.
Elippaprasoonam - flowers of Madhuca longifolia (Koeing) Mac Bride
Vamsee - Bamboo manna
15 gm each
Kana - Piper longum Linn. 30 gm
Yastee - Glycyrrhiza glabra Linn.
Sakarameenthappazham - Phoenix dactylifera Linn. (fruit with seeds)
60 gms each

The above drugs finely powdered, crushed and mixed well should be added with honey and consumed for the relief from Hyperhidrosis, Thamakaswasa, Kasa, Chest injury, Kshaya and pain on the sides of chest.

Seven varieties of Snanam (bathing) are Mantram, Bhaumam, Agneyam, Vayavyam, Divyam, Varunam and Manasam.

The first one among these types is to be conducted by chanting hymns starting with "Apohistha". Bhaumam is covering the body or bodily parts by mud. Application of cow-dung ashes is Agneyam. Exposure to the dust aroused by the hoofs of cows while they are walking is Vayavyam. Divyam is divine bath done in the rain when sunlight appears. Immersion in water is Varunam. The last one Manasam is self--contemplation to attain the ultimate aim of life.

-Yagnavalkya

Aryavaidyan Vol. 8 No. 4 May 1995 Pages 220 - 222

ഔഷധസസ്യങ്ങളും അർബുദചികിത്സയും

പ്രൊഫ. വി.പി.കെ. നമ്പ്യാർ

ഔഷധങ്ങളം ഉദ്ഭിജ്ജങ്ങളം, ജന്തുജങ്ങളം, ഖനിജങ്ങളം എന്നിങ്ങനെ മൂന്നുവിധത്തിലുണ്ട്. ഇവയിൽ 'ഉദ്ഭിജ്ജ'ങ്ങളം എന്ന സസ്യലതാദികൾക്കു തന്നെയാണ് വൈദ്യശാസ്ത്രത്തിൽ പ്രാധാന്യം കല്പിച്ചുകാണുന്നത്. എന്തുകൊണ്ടെന്നാൽ ഖനിജങ്ങളോ ജന്തുജങ്ങളോ ഉപയോഗയോഗ്യമായിത്തീരുന്നതിന് ഉദ്ഭിജ്ജങ്ങളുടെ ഉപയോഗം കൂടിയേ തീരൂ. സസ്യൗഷധങ്ങളെല്ലാം സേന്ദ്രിയങ്ങളാണെന്ന് ആത്രേയാദികളായ ആചാര്യന്മാർ പറയുന്നുണ്ട്. ഖനിജങ്ങളും ജീവജന്യങ്ങളുമായ പദാർഥങ്ങളം ഔഷധത്വേന മനുഷ്യന് ഉപയോഗയോഗ്യമാകണമെങ്കിൽ അവയോടുകൂടി പലവിധത്തിലുള്ള സസ്യങ്ങളുടെ രസങ്ങളോ കഷായങ്ങളോ കൂട്ടിച്ചേർത്ത് സംസ്കരിച്ചേ പറ്റൂ. ഇതിൽനിന്നും പച്ചമരുന്നുകളുടെ പ്രാധാന്യം മനസ്സിലാക്കാമല്ലോ. കൂടാതെ സേന്ദ്രിയത്വം കാരണം മനുഷ്യശരീരത്തോട് അവയ്ക്ക് ചേർച്ചയും ഉണ്ട്. ശരീരത്തിനകത്തുചെന്നാൽ അതിവേഗത്തിൽ വിലയിച്ച് ശരീരതത്ത്വങ്ങളോട് സായൂജ്യം പ്രാപിക്കുവാനും അവയ്ക്കു കഴിയും. ദൂർവാ എന്ന് സംസ്കൃതത്തിലും 'കറുക' എന്ന് മലയാളത്തിലും Cynodon dactylon എന്ന് ലാറ്റിൻ ഭാഷയിലും പറയുന്ന സസ്യം ഇതിന് ഉത്തമോദാഹരണമാണ്. ഈ സസ്യത്തിന്റെ ഇലകൾ വായിലിട്ട് നല്ലതുപോലെ ചവച്ച് ആ നീര് മുറിവുകളിൽ വീഴ്ത്തി ശീലക്ഷണംകൊണ്ട് കെട്ടുക. പിറ്റേ ദിവസത്തേക്ക് മുറി ഉണങ്ങിയിരിക്കുന്നതായി കാണാം.

ഭാരതീയ വൈദ്യശാസ്ത്രം ഋഷിവര്യന്മാരുടെ ലോകാനുഗ്രഹപ്രയത്നത്തിന്റെ പരിണിതഫലമെന്നേ പറയാനുള്ളൂ. അവർ യോഗവിദ്യകൊണ്ട് സംസ്കരിച്ച് അന്തർമുഖമാക്കിയിട്ടുള്ള ശക്തിസഞ്ചയത്തെ ഉപയോഗപ്പെടുത്തി ഓരോ ഔഷധങ്ങളെയും പ്രത്യേകം പ്രത്യേകം പരിശോധിച്ച് വകയും തുകയും തിരിച്ചിട്ടാണ് ഔഷധശാസ്ത്രം രചിച്ചിട്ടുള്ളത്. ഈ ശാസ്ത്രം വിധിയാംവണ്ണം അഭ്യസിച്ച് ശരിയാംവണ്ണം പ്രയോഗിച്ചാൽ ഭയാനകമായ അർബുദത്തെപ്പോലും ഒരുപരിധിവരെ നിയന്ത്രിക്കുവാൻ കഴിയും.

വലിപ്പമേറിയ സൂര്യഗോളം മുതൽ നിസ്സാരങ്ങളായ അണുക്കൾവരെയുള്ള സകല ചരാചരങ്ങളും ചില പ്രകൃതി നിയമങ്ങൾക്ക് വിധേയമാണ്. എന്നാൽ ഈ ലോകത്തിൽ പ്രത്യക്ഷത്തിൽ പ്രകൃതിനിയമങ്ങളെ അവഗണിക്കുന്നവർ മനുഷ്യർ മാത്രമാണ്. അക്രമപ്രവൃത്തിയുടെയും അന്യോന്യ കലഹത്തിന്റെയും ഏകവും അദ്വിതീയവുമായ ഉദാഹരണം മനുഷ്യൻ തന്നെയാണ്. മനുഷ്യൻ ആരോഗ്യരക്ഷാനിയമങ്ങളെ അനാദരിക്കുകയും ഐകമത്യം കൂടാതെ ജീവിക്കുകയും തൽഫലമായി രോഗിയായിത്തീരുമ്പോഴും അതിനെക്കുറിച്ച് വിസ്മരിക്കുകയും ചെയ്യുന്നുവെന്നുള്ളത് വിചിത്രമായ പരമാർഥം മാത്രമാണ്. തങ്ങളുടെ ശരീരത്തിന് വേണ്ടുവോളം ആരോഗ്യവും ആയുസ്സും ഉണ്ടാകണമെന്നുണ്ടെങ്കിൽ പ്രകൃതിനിയമങ്ങളെ അനുസരിക്കൽ, സാത്വികാഹാരങ്ങൾ ശീലിക്കൽ, പ്രാണായാമം മുതലായ യോഗവിദ്യകൾ അഭ്യസിച്ച് ശീലിക്കൽ, സത്യവും ലളിതവുമായ ജീവിതം നയിക്കൽ മുതലായവ അത്യാവശ്യമാണ്. ജീവിതചര്യയിലെ ക്രമക്കേടുകൾമൂലമാണ് ശരീരത്തി

ശ്രേയസ്സ്, വിയ്യൂർ, തൃശ്ശൂർ—10, കേരളം.

ലെ സന്തുലിതാവസ്ഥക്ക് കോട്ടം തട്ടുന്നത്. അവയെ പരിഹരിച്ച് ആരോഗ്യം വീണ്ടെടുക്കുവാനുള്ള ഉപായങ്ങളും ഋഷിവര്യന്മാർ നിർദേശിച്ചിട്ടുണ്ട്. ഈ നിർദേശങ്ങളിൽ ഏറ്റവും വിലപിടിച്ച ചികിത്സാ സമ്പ്രദായത്തിൽ അദ്വിതീയമായ സ്ഥാനമാണ് ഔഷധ സസ്യങ്ങൾക്കുള്ളത്.

രണ്ടാം ലോക മഹായുദ്ധം മുതൽ ഹിരോഷിമയിലും നാഗസാക്കിയിലും ആറ്റം ബോംബ് വീണതോടുകൂടി ലോകത്തിന്റെ മുഴുവൻ ശ്രദ്ധയും പാശ്ചാത്യ രാജ്യങ്ങളിലേക്കും അവരുടെ സംസ്ക്കാരത്തിന്റെ നേർക്കും തിരിഞ്ഞു. ജ്യോതിഷമായാലും ആയുർവേദമായാലും തച്ചുശാസ്ത്രമായാലും എല്ലാം പാശ്ചാത്യ ശാസ്ത്രങ്ങളുമായി യോജിക്കുന്നുണ്ടോ എന്നു നോക്കുവാനുള്ള പ്രവണത ശാസ്ത്രജ്ഞന്മാരുടെ ഇടയിൽ പ്രബലമായി. ഒരേ ആവശ്യത്തിനുള്ള രണ്ടു ഭിന്നശാസ്ത്രങ്ങൾ എന്നുള്ള നിലയിൽ അവ തമ്മിൽ എവിടെയെല്ലാം എങ്ങനെയെല്ലാം എത്രമാത്രം അകലുകയും അടുക്കുകയും ചെയ്യുന്നുവെന്നു മനസ്സിലാക്കുന്നതു നന്നായിരിക്കും.

ഇന്നു പ്രയോഗത്തിലിരിക്കുന്ന ആധുനിക അർബുദ ചികിത്സാ സമ്പ്രദായം നാലായി തരംതിരിക്കാം. 1. ശസ്ത്രക്രിയ, 2. റേഡിയം ചികിത്സ, 3. രശ്മി ചികിത്സ, 4. രാസപദാർഥ ചികിത്സ.

അർബുദ ചികിത്സയിൽ വിദഗ്ദ്ധമായി വിധിക്കുന്ന വിജ്ഞേയമായ ഛേദനക്രിയ പുരാണചരിതന്മാരായ പൂർവിക ശാസ്ത്രജ്ഞന്മാരുടെ ശസ്ത്രപാടവങ്ങൾക്ക് ഉത്തമോദാഹരണങ്ങളാണ്. അർബുദ ചികിത്സയിൽ ശസ്ത്രക്രിയ ഭംഗിയായി നടത്തിക്കൊണ്ടിരുന്നുവെന്നും, വിശേഷിച്ചും, കേരളത്തിൽ അതിന് പ്രചുരപ്രചാരമുണ്ടായിരുന്നുവെന്നും ചികിത്സാമഞ്ജരിയും യോഗാമൃതവും നോക്കിയാൽ മനസ്സിലാക്കാവുന്നതാണ്. എല്ലാ ലോഹങ്ങളിൽനിന്നും ഒരുതരം ശക്തി പ്രസരിക്കുന്നുണ്ടെന്ന് ഭാരതീയർ പണ്ടേ ഗ്രഹിച്ചിരുന്നു. അർബുദ ചികിത്സയിൽ കറുത്തീയ്യത്തിന്റെ പ്രയോഗം ആയുർവേദത്തിൽ പ്രധാനപ്പെട്ട ഒന്നാണ്. രശ്മികളെപ്പറ്റിയുള്ള സാമാന്യജ്ഞാനവും ഭാരതീയർക്ക് പണ്ടേ ഉണ്ടായിരുന്നു. രാവിലെ വെയിൽ കൊള്ളരുതെന്നും വൈകുന്നേരത്തെ വെയിൽ കൊള്ളണമെന്നും പറയാറുള്ളത് സൂര്യരശ്മികളുടെ ആരോഗ്യദായകപരമായ ശക്തികൂം കണക്കിലെടുത്താണ്. ഏതൊരു രോഗത്തിനെ ഉണ്ടാക്കുന്നതിന് ഒരു ഔഷധത്തിന് (ദ്രവ്യത്തിന്) ശക്തിയുണ്ടോ അതിന്ന് ആ രോഗത്തെ ഉന്മൂലനാശം ചെയ്യുന്നതിനും കഴിയുമെന്നുള്ളതാണ് പുരാതനവും ഏറ്റവും ആധുനികവുമായ സിദ്ധാന്തം.

ഗ്രന്ഥി, അർബുദം, അപചി, ഗണ്ഡമാല, ശ്ലീപദം, നാഡീവ്രണം എന്നീ രോഗങ്ങളെയെല്ലാം ഒരേ പ്രകരണത്തിൽ ഉൾപ്പെടുത്തിക്കൊണ്ടാണ് സംഹിതാകർത്താക്കളായ ഋഷിവര്യന്മാരും മറ്റാചാര്യന്മാരും ചികിത്സാവിധികളും നിർദേശിച്ചിട്ടുള്ളത്. വാതാർബുദം, പിത്താർബുദം, രക്താർബുദം, മാംസാർബുദം, കഫാർബുദം എന്നിങ്ങനെ അർബുദത്തെ ആചാര്യന്മാർ തരംതിരിച്ചിട്ടുണ്ട്. അവക്ക് പ്രത്യേകം ചികിത്സാവിധികളും നിർദേശിച്ചിട്ടുണ്ട്.

അർബുദഹരങ്ങളായ ലേപനങ്ങളും, കഷായങ്ങളും, തൈലങ്ങളും, ഘൃതങ്ങളും, സിന്ദൂരങ്ങളും എന്നിവയിൽ ഉപയോഗിക്കുന്ന ഔഷധസസ്യങ്ങളും നിരവധിയാണ്. അവയിൽ പ്രധാനപ്പെട്ട ചിലതുമാത്രം ചുവടെ ചേർക്കുന്നു. പ്രസിദ്ധീകരിച്ചിട്ടില്ലാത്ത ചില അമൂല്യഗ്രന്ഥങ്ങളിൽ നിന്നും ശേഖരിച്ച വിവരങ്ങളും ഇതിൽ ഉൾക്കൊള്ളുന്നു.

ലേപനങ്ങൾ:—

1. താമ്രം രാകിപ്പൊടിച്ചത് തൊട്ടാവാടി ഇലയുടെ നീരിൽ അരച്ച് വില്ലയാക്കി സ്വേദം ചെയ്ത് തേനിൽ ചാലിച്ചു പുരട്ടുക. ഇതുതന്നെ ഉള്ളിലേക്കും കൊടുക്കുക.
2. കടുകിന്റെ ഇല, വേപ്പില, ചേർക്കുരു എന്നിവ ആട്ടിൻമൂത്രത്തിൽ അരച്ചു പുരട്ടുക.
3. കുടകപ്പാലവേരിന്മേൽതൊലി കഷായം വെച്ച് ഈ തൊലിതന്നെ കല്ക്കം ചേർത്ത് വെളിച്ചെണ്ണ കാച്ചി പുരട്ടുക.
4. മുരിങ്ങാത്തൊലി, ദേവതാരം. അരിക്കാടിയിൽ അരച്ചുപുരട്ടുക.
5. നാഗദന്തിവേര്, കൊടുവേലിക്കിഴങ്ങിന്റെ തൊലി, കള്ളിത്തണ്ട്, എരുക്കിന്നില, ശർക്കര, ചേർക്കുരു ഇവ എരുക്കിൻപാലും കള്ളിപ്പാലും സമം ചേർത്തതിൽ അരച്ചു ലേപനം ചെയ്യുക.
6. വിഷ്ണുക്രാന്തിയും ചെറുചീരയും സമൂലം അരിക്കാടിയിൽ അരച്ച് ലേപനം ചെയ്യുക.
7. കാക്കത്തൊണ്ടിവേര്, അമവേര്, പ്ലാശിൻതൊലി ഇവ സമം എടുത്ത് അരി

ക്കാടിയിൽ അരച്ച് ലേപനം ചെയ്യുക.

8. പാടക്കിഴങ്ങ്, വിഴാലരിക്കാമ്പ്, ചെറുതേക്കിൻവേര്, ത്രിഫലത്തോട് ഇവകൊണ്ട് എണ്ണ കാച്ചി പുരട്ടുക.
9. പിച്ചകത്തില, ശംഖുപുഷ്പം, നീർമരുതിൻതൊലി ഇവ സമം അരിക്കാടിയിൽ അരച്ചുപുരട്ടുക.
10. ശംഖുംകുപ്പിയിലനീരിൽ ചീനപ്പാവ്, പുല്ലാനിയില, നിലനാരകവേര് ഇവ സമമെടുത്ത് അരച്ചുപുരട്ടുക.
11. വെളുത്ത ആവണക്കിൻ വേര്, ഞാഴൽപൂവ്, തേങ്ങാപ്പീര, വെള്ളരിക്ക, കത്തിരിക്ക എന്നിവ സമം എടുത്ത് അരച്ചുചൂടാക്കി പുരട്ടുക.
12. മുള്ളൻചീരയില, കാക്കത്തൊണ്ടിവേര്, ഞാഴൽപ്പൂവ്, ചപ്പങ്ങം, ചെഞ്ചല്യം, നീർമരുത്, ഇരട്ടിമധുരം ഇവ സമമെടുത്ത് കള്ളിപ്പാലിൽ അരച്ചുപുരട്ടുക.
13. മേദസ്സ് ശസ്ത്രക്രിയ കൊണ്ടു നീക്കി, വ്രണാന്തർഭാഗം ശുചിയാക്കി പാച്ചോറ്റിത്തൊലി, പുകയില, മനയോല, ചപ്പങ്ങം എന്നിവ പൊടിച്ച് തേൻ ചേർത്ത് കുഴച്ചുപുരട്ടുക.
14. അത്തിത്തൊലി, കൊഴുപ്പയില, വശളച്ചീര ഇവ സമം എടുത്ത് അരച്ച് തേനും ചേർത്ത് ലേപനം ചെയ്യുക.

കഷായങ്ങൾ:—

1. ചീനപ്പാവ്, കരിഞ്ചീരകം, വയമ്പ്, ത്രിഫല, ജാതിക്ക, അമർച്ചക്കൊടിവേര്, കാട്ടുമുളകിൻവേര്, കൊടുത്തൂവവേര്, മുഞ്ഞവേര്, അടക്കാമണിയൻവേര്, പെരുങ്കുരുമ്പവേര്, നറുനീണ്ടിക്കിഴങ്ങ്, പാർവള്ളിക്കിഴങ്ങ്.
2. കുറുന്തോട്ടിവേര്, ദേവതാരം, കരിങ്കുറുഞ്ഞി, വേപ്പിൻതൊലി, അമൃത്, ആടലോടകവേര്, കറുത്ത ചുണ്ടവേര്, ചെറുവഴുതിനവേര്.
3. പൂവ്വാങ്കുറുന്തില, തൊട്ടാവാടി, എലിച്ചെവി, ഉഴിഞ്ഞ, കഞ്ഞുണ്ണി, കറുക, തിരുതാളി, വിഷ്ണുക്രാന്തി, ചെറൂള.
4. കടുക്, ചെറിയ പഞ്ചമൂലം, നാഗപ്പൂവ്, ത്രിഫലത്തോട്, ചെറുതേക്കിൻവേര്, ഓമം, പുത്തിരിച്ചുണ്ടവേര്, കൊത്തമ്പാലരി, ജീരകം, ഇരുവേലി, ഇരട്ടിമധുരം, നറുനീണ്ടിക്കിഴങ്ങ്, ജടാമാഞ്ചി, പാച്ചോറ്റിത്തൊലി, ശതകുപ്പ, മഞ്ചട്ടി, കടുകുരോഹിണി, പാടക്കിഴങ്ങ്, പെരുങ്കുരുമ്പവേര്, ഗോതമ്പ്, ഗുൽഗുലു, ശതാവരി, കോവൽക്കിഴങ്ങ്, അടപതിയൻ കിഴങ്ങ്, വേപ്പിൻതൊലി, ദേവതാരം, മലര്, അരിയാറ്, ചേർക്കുരുപ്പരിപ്പ്, ചിറ്റീന്തൽവേര്, പച്ചക്കർപ്പൂരം, ആടലോടകവേര്, കച്ചോലം, ഇലവംഗം, ഗ്രാമ്പൂ, കരിങ്ങാലിക്കാതൽ, വേങ്ങാക്കാതൽ, കടുക്ക, നാഗദന്തിവേര്, കൃഷ്ണത്തുളസി, രാമത്തുളസി, കൂവനൂറ്, പെരുഞ്ചീരകം, ആശാളി, താലീസപത്രം.

ഗുൽഗുലുതിക്തകഘൃതം രസസിന്ദൂരം ചേർത്ത് സേവിച്ചാൽ എത്ര ശക്തിയുള്ള അർബുദവും മാറുമെന്ന് അനുഭവത്തിന്റെ വെളിച്ചത്തിൽ പ്രസ്താവിച്ചുകാണുന്നു. ത്രിഫലാഗുൽഗുലുവും കാഞ്ചനാരഗുൽഗുലുവും അർബുദചികിത്സയിൽ അത്ഭുത സിദ്ധിയുളവാക്കുമത്രേ! മേൽ പ്രസ്താവിച്ച യോഗങ്ങളിൽ ഏറ്റവും ഫലപ്രദമായവ ഏതെന്നു ഗവേഷണദ്വാരാ നിർണയിക്കേണ്ടതാണ്. അയ്യപ്പാന അഥവാ വിഷപ്പച്ച ഗർഭാശയ അർബുദത്തിലും പൂവ്വാംകുറുന്തിലയും കറുകയും ശവനാറിയും രക്താർബുദത്തിലും ഫലവത്തായി കണ്ടിട്ടുണ്ട്. പ്രകൃതിചികിത്സയിൽ തലച്ചോറിൽ അർബുദം കൊണ്ടുണ്ടാകുന്ന മുഴകൾക്ക് മണത്തക്കാളി പ്രയോഗിച്ച് അനുഭവം കണ്ടിട്ടുണ്ടെന്നും അറിയുന്നു.

സംഹിതകൾ, യോഗങ്ങൾ ശേഖരിച്ച് ക്രോഡീകരിച്ചിട്ടുള്ള ഇതര ആയുർവേദഗ്രന്ഥങ്ങൾ, പ്രകാശം കാണാതെ നിദ്ര പ്രാപിച്ചു കിടക്കുന്ന താളിയോലഗ്രന്ഥങ്ങൾ മുതലായവ പരിശോധിച്ചാൽ അർബുദചികിത്സയിലെ ഫലപ്രദമായ നാഴികക്കല്ലുകൾ കണ്ടെത്താൻ സാധിച്ചേക്കും.

ആരോഗ്യം വീണ്ടെടുക്കുവാനും പ്രതിരോധശക്തി വർധിപ്പിക്കുവാനും പ്രകൃതിയിലേക്കു മടങ്ങുകയും പ്രകൃതിയെ മലനീകരണത്തിൽനിന്നും മോചിപ്പിക്കുകയും ചെയ്യുക എന്ന നിർദേശത്തോടുകൂടി ഈ ചെറുപ്രബന്ധം ഉപസംഹരിച്ചുകൊള്ളുന്നു.

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