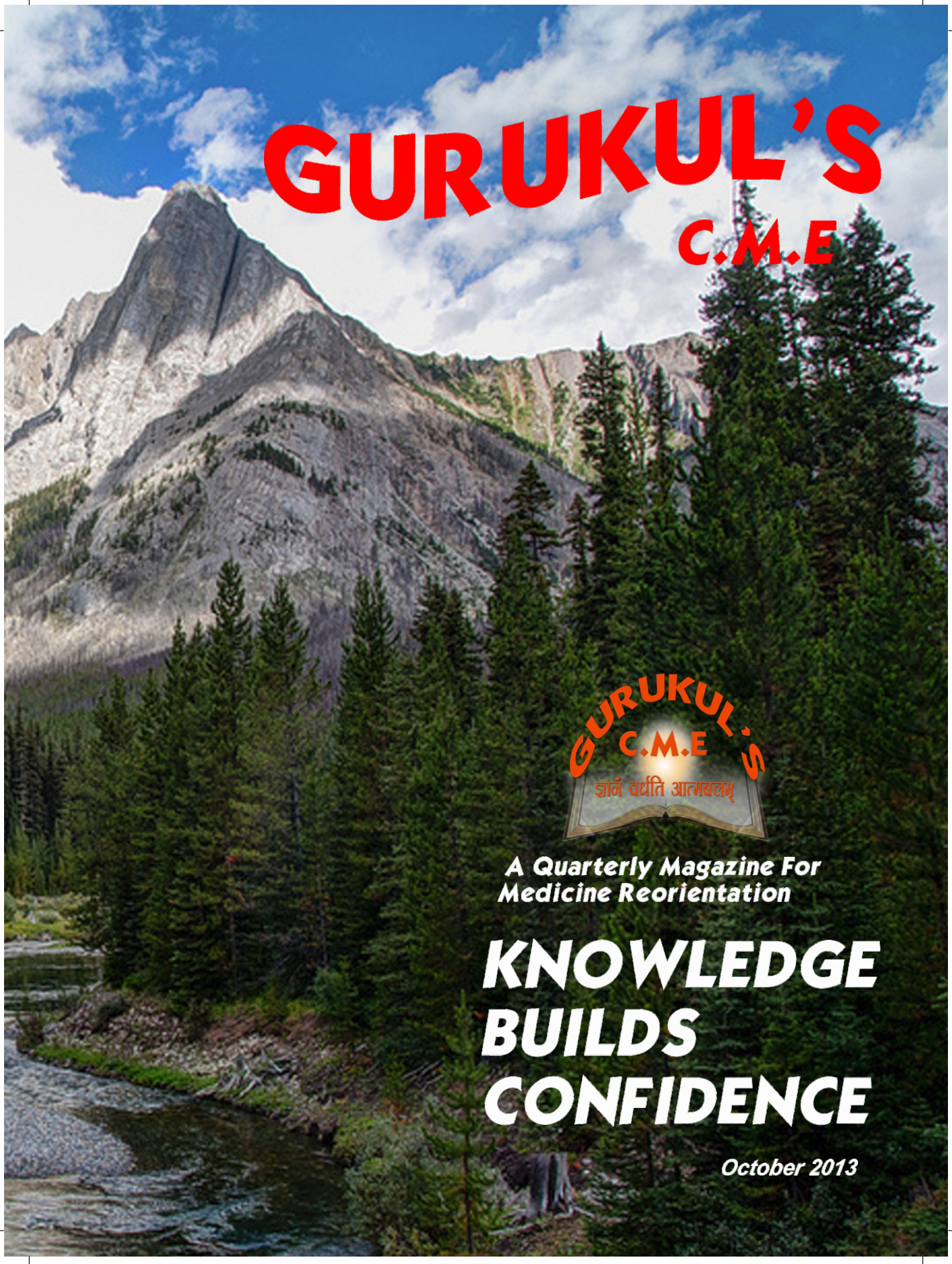
GURUKUL'S
C.M.E
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ज्ञानं वर्धति आत्मबलम्
A Quarterly Magazine For
Medicine Reorientation
KNOWLEDGE
BUILDS
CONFIDENCE
October 2013

'DHANVANTRI' GOD OF MEDICINE

नमामि धन्वन्तरिमादिदेवं,
सुरासुरैर्वन्दितपादद्मम्।
लोके जरारूग्भयमृत्युनाशं,
दातारमीशं विविधौषधीनाम्।।

*Bowing before, the primitive "**God Dhanvantri**" whom gods & devils bestow their offerings at **His Lotus** feet. **He** is the one, in this universe who conquers **fear, disease, old age & death.** **Pray,** The **Almighty** ! instill the knowledge of various **Medicines.***

Dear Doctor,

It's a privilege, pleasure & pride to interact with you ! my esteemed friends.
Dissemination of knowledge has remained prevalent since ancient times of GURUKUL till today's continued medical education programmes i.e. C.M.E.
Presently, it is an era of reasoning, research, & representation based on scientific parameters & clinical findings.
The preventive & curative aspects go hands in gloves with life style regulation.
Now a days there is paucity of time besides tiring routine. This initiative may draw your academic attention to go through the medical articles contributed by honorable experts & specialists.
I extend my personal regards & thanks to them for sharing their valuable expertise.
In this endeavor may I seek your sincere suggestions to improve my learning failures.

Wish You Health & Happiness
On Dhanvantri Day & Deepawli

Dr. Dinesh Vasishth
Ph.D** (INTERNAL MEDICINE); **M.B.A.

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Important

* *Views & Opinions Expressed In The Articles Are Entirely Of Authors.*

* **For January 2014 Issue:** You are requested to send Articles on Research, Clinical Study or Expertise, with your Photograph. **Before 20th December**, 2013 at gurukulscme@gmail.com, dr.vdinesh@gmail.com

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Activities and Achievements

The Central Council for Research in Ayurvedic Sciences (CCRAS), an apex body for the formulation, coordination and development of research in Ayurveda on scientific lines was established in March 1978 after re-organization of CCRIM&H. The Minister of Health & Family Welfare is the President of the Governing Body of the Council while the Joint Secretary chairs the Standing Finance Committee. The scientific/ research programs are supervised by the Scientific Advisory Board chaired by eminent scholar of the system.

It has 30 peripheral institutes in different states across various parts of the country. The main objectives of research in CCRAS are development of new drugs, re-validation of certain classical formulations, capacity building in Ayurveda and dissemination of Ayurveda science and research outcomes in masses.

Research activities: The research Programme under this Council may be broadly categorized into Clinical Research including Health Care Research, Drug Research including Medico-Ethno-Botanical Survey Programme, Cultivation of Medicinal Plants, Musk Deer Breeding Programme, Pharmacognosy Research Studies, Plant Tissue Culture, Drug Standardization, Pharmacological/Toxicological studies, Family Welfare Research (Clinical and Experimental), Reproductive and Child Health Care Research, Amchi Research Programme, Literary Research along with Documentation and Publication.

Clinical Research activities of the Council in the past 3 decades have resulted into the evolution of drugs/ formulations like Ayush-64 for Malaria, Ayush-56 for Epilepsy, Ayush-82 for Diabetes mellitus, 777 Oil for Psoriasis, Poonimilai chendooram for Leucoderma and Pippalyadi Yoga – as an oral contraceptive.

Efficacy of other drugs like various Guggulu preparations for Medoroga, Mandookparni for mental retardation, Katuki for liver disorders. Besides, specialized treatment procedures like Panchkarma therapy for the treatment of various neurological disorders, Amasaya Shodhana Chikitsa for acid-peptic disorders and Para surgical techniques; Ksharasutra Chikitsa for the treatment of fistula-in-ano and ano-rectal diseases, Jalauka (Leech application) in various skin diseases, eye diseases etc. have been successfully demonstrated.

The Council has developed formulations for thirty diseases, which includes national and global priority diseases to carry out clinical research.

Under drug research, more than 1,20,000 plant specimen along with 3,000 museum drug samples of plant, mineral and animal origin and 5,000 plant based folk medicines have been collected. Pharmacognostic investigations on about 175 important Ayurvedic/Siddha medicinal plants/drugs have been completed so far.

About 500 single drugs along with 50 formulations have been standardized with reference to Physico-chemical values and rapid analytical values for about 675 formulations have been worked out. Chemical studies on 300 drugs used in Ayurveda systems of Medicine have been completed.

Collaborative & Intra Mural Research : The Council has proposed collaborative studies on Ayush Rasayana for healthy ageing, Ayush-A for Bronchial Asthma, Ayush K1 for Kidney disorder, Ayush C1 oil for wound healing, Ayush-D for Diabetes mellitus for developing new drugs.

The Council has launched studies on various intra mural research projects through its peripheral institutes. Some of these IMR projects completed recently are Osteoarthitis, Rheumatoid arthritis, Osteoporosis, Dislipidemia, Obesity, Diabetes mellitus Type II, Bronchial Asthma, Chronic bronchitis, Cognitive deficit, Rasayana in apparently healthy elderly persons, Irritable bowel syndrome, Menopausal syndrome, Dysmenorrhea, Iron deficiency anaemia, Essential hypertension, Dry eye syndrome, Allergic conjunctivitis

The Council is helping extension of Extra Mural Research (EMR) scheme of Department of AYUSH for financial assistance to Ayurveda organizations, individuals and industries to develop projects of Ayurveda.

The Council is conducting training courses for doctors and technicians on Panchakarma therapy on the basis of nominal charges.

Patents in credit: The Council has obtained 15 process patents, 4 patents for drugs. Apart from these, 12 patents have been filed for granting patents.

Publications: There is a Publication Division for publication and sale of Council's research related publications and other health related publications useful to the common public. The Council has published about 100 books/monographs and is also bringing out quarterly Journals – 'Journal of Research in Ayurveda', 'Bulletin of Medico-Ethno-Botanical Research' and 'Bulletin of Indian Institute of History of Medicine' (bi-annual) besides a Newsletter to appraise the scientific community about the research and other activities of the Council.

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Critical Hours in Medical Practice

One should not ignore warning signals as "time is life" in medical science. The three cardinal warning signals are: anything which is unusual, anything which cannot be explained and any symptom appearing for the first time in life.

Time is life is an old saying. In heart attack time is muscle and in brain time is brain.

Most acute emergencies will require emergent evaluation and treatment. Delay in treatment even of minutes can take away the life. In emergency one should not waste time to think, rush to a bigger hospital with full facilities and make sure that the person is attended to in time. Many hospitals may have ill equipped emergency departments or may have inadequately trained staff. In nursing homes the ER doctor may be from other systems of medicine.

In emergency medicine, the golden hour refers to the first hour following traumatic injury being sustained by a casualty, during which there is the highest likelihood that prompt medical treatment will prevent death. If bleeding can be stopped and person can be infused enough fluids within first hour most trauma death can be avoided.

Platinum ten minutes refers to first ten minutes after trauma and refers to the importance of starting first aid within ten minutes to reduce the chances of death.

Door to ECG Time is an important terminology in the treatment of heart attack. One should get an ECG within 10 minutes of chest pain. A prolonged door-to-ECG time is associated with an increased risk of clinical outcomes in patients with ST elevation heart attack.

Door-to-Doctor Time in Stroke is another term. In emergency department arrival to initial physician evaluation should be less than 10 minutes in stroke or the mortality will be high.

Door to neurologist time is for the specialist. In emergency department arrival to Paralysis Stroke Team Notification time should be less than 15 minutes.

Door to CT scan time is the time before which the CT should be done in suspected paralysis. In the emergency department arrival to CT Scan initiation in stroke should be less than 25 minutes. Door-to-CT Interpretation in stroke should be < 45 minutes

Door to tPA time is the treatment window in paralysis: 80% of eligible paralysis patients presenting to the emergency department should be treated with tPA clot dissolving drug within 60 minutes.

Door to antibiotic time in community acquired pneumonia is the time to start antibiotics. Practice guidelines suggest that all patients hospitalized with community-acquired pneumonia should receive antibiotics within 4 h of admission

Door to antibiotic time in meningitis of more than 6 hour is linked to high mortality (8.64 times).

Door to needle time in acute heart attack is the time before which the clot dissolving drug should be given: In ST elevation heart attack recommended that the door-to-needle time should be less than 30 minutes.

Door to balloon time is for angioplasty. Primary percutaneous coronary intervention is now preferred for most patients if it can be performed by an experienced operator with less than a 90 minute delay from presentation to the emergency department.

The window for starting clot dissolving therapy with negative CT scan in a patient with acute paralysis is four-and-a-half hours.

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"Muneks" a promising Ayurvedic drug in the management of cancer

Introduction:

Cancer has become a serious problem in the world because today. Many people are dying by cancer and incidents have risen severely over the last 50 years. In India 8 lakh new cases are being detected every year indicating the severity of the disease. Despite the extensive research work and development of newer drugs and technology in modern oncology cancer has remained a dreaded challenging disease. Ayurveda being an age old health science with scientific therapeutic principles and treasure of thousands of potent safe herbal and mineral products is expected to give an assuring answer to this problem. The excruciating experience of dying cancer patients can be ameliorated by making use of Ayurvedic principles. Ayurveda can be helpful in the management of cancer in many ways such as— prophylactic, palliative, curative and supportive.

With this idea, on the basis of enormous experience in the field of Ayurveda research, therapeutics, manufacturing and education, Muniyal Ayurveda Reseach Centre developed a novel herbo-mineral product **"Muneks"** Tablet to combat cancer.

Composition

Muneks is a combination of more than 50 anti-carcinogenic herbs, minerals and bhasmas prepared according to the description given in the ancient texts of Ayurveda. The preliminary reports are quite promising and encouraging.

Muneks is a polyherbo-mineral formulation containing the ingredients such as Ashvagandha (Withania somnifera), Kanchanara (Bauhinia purpurea), Haridra(Curcuma longa), Punarnava (Boerhavia diffusa), Shigru(Moringa oleifera), Bhrigaraja (Eclipta alba), Ishvari (Aristolochia indica), Shunthi (Zingiber officinale), Pippalee (Piper longum), Maricha (Piper nigrum), Amalaki (Emblica officinalis), Haritakee (Terminalia chebula), Vibhitaki (Terminalia bellerica), Tulasi (Ocimum sanctum), Abhraka Bhasma etc.

Safety study: The product was evaluated for acute toxicity as per OECD guidelines 423(Acute Class Method) and found to be safe and non toxic even beyond 5000mg/Kg body weight.

Quality standardization:

The product Muneks was standardized by using physico-chemical parameters and advanced techniques like HPTLC.

Therapeutic potential of 'Muneks':

This is a very potent formulation formed by combining a number of herbo-mineral drugs and developed after extensive research work. Some of the ingredients in the formulation showed very good immuno-modulatory activity. They enhance natural killer cell activity and also Tumor Nursing factors and anti-body dependent cellular cyto-toxicity (ADCC) syngeneic BALB/c mice, bearing tumor.

Some ingredients have anabolic and cyto-protective activity, proving their action in protecting the vital organs like liver and the kidneys. Other ingredients showed antioxidant effects where they acted as potent inhibitors of lipid peroxide formation and

scavenger of hydroxyl and super oxide radicals in vitro. Anxiolytic, anti-stress activities of certain ingredients along with anti inflammatory and anti ulcer activities contribute to the overall effect of the formulation.

The studies carried out in ahighly reputed Pharmacology research center of Chennai has proved Muneks to be having good anti tumor activity against Dalton cell lymphoma.

Muneks an integral part of Mahoshadha Kalpa:

Mahoshadha Kalpa is a multi-dimensional treatment for Cancer designed and developed by Dr. U. Krishna Muniyal Memorial Trust (R). Mahoshadha Kalpa, purely based on the Indian System of Medicine, has been indigenously researched and developed that causes no untoward ill effects but inducts a sense of well being in patients. Ten patients of Cancer were treated under Mahoshadha kalpa. More than 250 patients of about 22 different varieties of cancer at different stages have been treated under Mahoshadha Kalpa. The reports have been highly encouraging in the conditionals like adenocarcinoma of breast, papillary carcinoma of lungs, non Hodgkin's lymphoma and lung cancer. Initial studies suggest that Mahoshadha Kalpa is also helpful in preventing the development of metastasis (secondaries).

Mode of Treatment:

- Muneks, a research drug prepared out of various herbs and bhasmas dissolves away the tumor cells and produces no ill-effects even in high doses. Other research products of the trust are also added as required.
- Detoxification of body by Deerghayu kalpa.
- Prevention of food-related diseases by adopting clinical diet.
- Adoption of Dinacharya (daily regimen) and Ritucharya (seasonal regimen) to counter the environmental ill effects.
- Practice of Samata and Maitri Dhyana, Yoga and Pranayama for Chitta Shuddhi and Vipassana Dhyana to provoke cellular intelligence and thereby control the cancer growth progression.
- Rejuvenation of body cells by Pyramid therapy.

The following benefits are noticed in patients:

- No ill effects like hair fall, organ damage, etc.
- Early treatment provides better efficacy and benefits.
- Treatment is economical, compared to prevailing lines of treatment.
- Early restoration of health - prolongs life span.
- Proper spiritual guidance and counselling improves will power to face the disease, and wards-off fear of death.

Conclusion: In total, it can be said that Muneks has a great potential to come out as a futuristic drug in the management of cancer. An attempt is in progress to screen our product Munkes for inhibitory activity against telomerase enzymes. It is also planned to evaluate the product against various cancer cell lines to get further scientific evidences on its anti cancer potential.

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Diabetes and Erectile Dysfunction

With the growing epidemic of diabetes, a huge burden of its complications has surfaced globally as well as in India. Most of these complications affect vital organs like heart, kidney, brain, eyes, nerves etc. and are the focus areas in terms of prevention and management. However, erectile dysfunction (ED) as a complication of diabetes often does not receive as much attention. Several factors like hesitation and embarrassment on part of either patient or physician, incorrect perception of ED being an age related 'normal' phenomenon and lack of understanding about the underlying serious disease are responsible for suboptimal identification and management of this disorder.

The prevalence of ED in diabetes has been variously reported to be between 20-85%, depending on the duration of diabetes, age of study population and the definition of ED. The prevalence of ED was reported to be 28% in diabetics and 10% in nondiabetics in Massachusetts Male Ageing Study. In a recent study from Italy, the prevalence of ED was 43% in 1503 men with newly detected T2DM (duration < 2 years). There is only one study from India (Bikaner, Rajasthan) in which the prevalence of ED was reported to be 78% in 50 patients with diabetes.

Evaluation of a diabetic patient with ED should include a careful history with psychological evaluation. International Index of Erectile Function (IIEF-5) is a useful tool to detect and grade ED. Physical examination should include assessment of secondary sexual characters, testicular size and any penile deformity or plaque. Most patients will need a hormonal evaluation with measurement of serum testosterone and prolactin. Dynamic Doppler study of penis after either intracavernosal alprostadil or oral sildenafil is needed occasionally.

There are two management goals in a patient with diabetes who presents with ED. The primary and immediate aim is to treat his disability. But what is equally important is to uncover an underlying disorder like hypogonadism or cardiovascular disease. It is now well recognized that ED is a marker of widespread endothelial dysfunction in several vascular beds and may precede the onset of coronary artery disease. The recent Joslin Medalists Study of longstanding (>50 years) type 1 diabetics reported a strong relationship between sexual dysfunction and cardiovascular disease. In a prospective study of more than 2000 patients with diabetes with no cardiovascular disease, those with erectile dysfunction had a significantly higher risk of an incident cardiovascular event. Therefore ED has emerged as a risk factor for coronary artery disease and its presence provides an opportunity for primary prevention. Any patient with diabetes with erectile dysfunction should have a cardiovascular risk assessment and those with very high cardiovascular risk may have a coronary evaluation by exercise testing or coronary calcium scoring.

A significant number of diabetic patients with erectile dysfunction have hypogonadism or low serum testosterone levels. There is some evidence that treatment with testosterone in diabetic patients with hypogonadism improves insulin sensitivity and glycemic control, however robust and long

term evidence is lacking. Nevertheless, there are other benefits to be derived from testosterone replacement like improvement in libido and sexual function, as well as in bone density, muscle strength and cognition. Endocrine Society recommends testing of serum testosterone levels in all patients with type 2 diabetes.

Erectile dysfunction in diabetic patients can be treated as in nondiabetics. Usually, PDE-5 inhibitors are the first line agents in treatment. These drugs can be used safely in diabetes; however care should be taken about interaction with antihypertensive drugs and nitrates. These drugs are generally used on an as needed basis; however daily low dose tadalafil has been used with good success. In patients who fail to respond to PDE5 inhibtors, the options are intracavernosal injections of Alprostadil, intraurethral Alprostadil, vacuum device and penile prostheses.

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Science, Ethics & Moral of Ayurveda

Ayurveda does not advocate the use of Alcoholic Extract in their Ayurvedic medicine manufacturing Process. The result of Alcoholic Extract is more yields. Alcohol Extracts may extract unwanted Phytochemicals which do not come in water extract (hence less yield). These extra phytochemicals of plant Alcohol extract may have side effects in humans ,which is not as per Principles of Ayurveda , not time tested as claimed by WHO ,& hence use of alcoholic extract requires further Research, to be used as Drugs & Pharmaceuticals, after standard Drug development and Research processes. The alcoholic extract may lose certain Phytochemicals which may have certain positive response in Pharmacokinetics, Pharmacodynamics, Drug Availability, Absorption, Lowering toxicity etc.

To learn and understand Ayurveda and its principles, high degree of fundamental Science is required like Genomics for "Prakrity", Nanotechnology for "Bhasma", Proteomics for "Ahar-Vihar", Molecular Biochemistry (drug Pharmacodynamics & Pharmacokinetics, toxicology) for Mechanism of action. Hence, to produce, Ayurvedic Pharmacist, Nurse or Dietician with lower merit students which do not offer "candidature" (patrata) .to understand the Ayurveda & its Principles. Hence, back door entries to science subjects like Pharmaceuticals, Nursing, Home science should be discouraged and stopped.

The present Drug & Cosmetic Act and rules, are becoming a hurdle, barrier, obstacle in popularizing Ayurveda. The Ayurveda Vadic Science, is similar to jyotshis, yoga, tantra & mantra. Ayurvedic practices are offered by rishis, maharishis from time immemorial for mankind to live prosperous & peacefully. Hence, in Public & Social interest, Ayurved practices should be freed from Drug and Cosmetic Act and rules. If certain modification is required to use Toxic Herbs, in the interest of public, it can be done with discussion with the expert.

For example- Advocating & Popularizing, the selling, manufacturing & the use of Trifla (Haran, Baher, Amla combination) for betterment of mankind, should not be prohibited, to be practiced by any food industry or expert. Also for general information, in global market, such herbal formula/ combination comes under Food act and not in Drug and Cosmetic Act and rules. Similarly other herbal formulation should be relaxed from Drugs and Cosmetics Act for its propagation & popularization for using the herbal health healing properties in public interest. Especially then, when globalization have impact in individuals & business economy of our country and health status of our country is not good.

Ayurveda advocates that it is not only Ayurvedic product which is responsible for Prevention & Cure. The life style i.e, Ahar-Vihar is equally responsible for complete cure & better health, meaning thereby Ayurved is lifestyle, ahar-vihar, hygiene, food, Nutrition, Ayurved is not a Molecular Therapeutics or toxicity as in Allopathy Medical Sciences, which comes under Drug & Cosmetic Act & rules. Hence, Ayurveda should not come under drug & cosmetic act & rules.

Regarding, the judicious use of quality and quantity, many patent, Ayurvedic Drugs contain Herbs in many numbers (quality) & also in very less amount (quantity). Ayurveda texts and Principles advocate the use of herb mostly in gramage, whereas Certain Patent formulation contain herbs in milligramage, which are not judicious to be used and practiced in Ayurveda for betterment of health. For a better result, the user, doctor, vaidya expert or manufacturer should ensure good therapeutic quantities of herbs and qualities of herbs in required formulation. In present time, there are variations in. qualities of raw Drugs as there procurement is not done, based on Ayurveda Collection principles, time of collection, place of collection, is not considered while collection. Hence, timely scientific validation of herbs and there combination plays an important role in determining the efficacy of the drugs / Patent products.

Ensuring full quantity of herbs in formulation is also very important i.e, the proper water extraction should be done to extract all traces of active ingredients present in the herb. It is noticed sometimes that manufacturers are starting the batch in morning and by same day in evening, they complete the batch of 100 liters and pack & label them. This suggest that very less quantity of herbs and shortcut, manufacturing process are used by manufacturer, hence the ultimate therapeutic result is not observed in the product, by the result, Ayurveda system, as a whole is blamed. So, judicious combination, process, steps should be practiced for manufacturing of pure, safe, effective quality, of Ayurvedic products which ultimately will give response. Hence, the moral, ethics, values, along with good manufacturing practices play an important role in Sanatan Ayurved System.

Over and above, health system is not a profession, it is a service to Mankind, it is a mission. No such practices should be followed or adopted, which professionalize the health system. The present aggressive marketing strategy promote the professionalism. Primary goal of marketing is more sale, sale involve the stages of convince, confusion & corruption, "3c" formula. And many more thing, where does the Novel cause of medical services prevails.

Medical Services is a Novel Profession with Ethics, competition is everywhere but bad practices in order to achieve production, sale and fame should not be practiced. Doctors are second to God, they have learned and studied, they serve suffering humanity, they deserve special respect and status in society. At the same time they also need to remain in Ethics.

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S. No.	Country	Patent No.	Date
1.	U. S. Patent	7,416,743,B2	26/8/2008
2.	Chaina Patent	ZL200380109770,x	17/6/2009
3.	EU Patent	1583499	25/6/2009
4.	INDIA Patent	238558	27/1/2010

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Low Back Ache
Katishula & Its Possible Treatment: Kati Basti

Low back pain affects approximately 60.85% of adults during some point of their life and 10% of this is because of Lumbar Spondylosis (LS). Kati Graha or Katishula, which is correlated with LS is a degenerative condition affecting the discs, vertebral bodies, and/or associated joints of the lumbar spine. LS is defined broadly as degenerative condition affecting the discs, vertebral bodies, and/or associated joints of the lumbar spine. KatiGraha is Shosha (degeneration), Stambha (stiffness) and Shula (pain) predominant Vyadhi (disease). As correctly said by Acharya Sushruta without vitiation of Vata, Shula cannot be produced. Gada Nigraha clearly states that pain is produced due to stiffness which is produced by Sama (with Ama) or Nirama (without Ama) Vayu movement into Kati (lumbar region) hence this suggests of presence of Dhatu Kshayatmaka (degenerative) and Marga Avarodhaka (obstructive) type of Samprapti (pathology).

This existence of constant pain urges one to find a remedy. But, there is no current concrete, gold-standard treatment approach to the diverse range of patient presentations of Kati Graha (LS) despite substantial research efforts to identify conservative and more invasive methods of managing symptoms and slowing progressive degeneration.

Keeping in mind the high prevalence, rate of disability in productive span of life, intensity of symptoms of disease, lack of current effective treatment and considering classical reference of efficacy of Kati Basti in Kati Graha, clinical trial was conducted to assess the efficacy of Kati Basti in the management of Kati Graha with special reference to LS.

Ayurvedic diagnosis states that there is no pain without Vata, no inflammation without Pitta, and no stagnation or stiffness without Kapha. Therefore all lower back pain scenarios have Vata Dosha as a significant diagnostic factor. While low back pain can have multiple Dosha involvement, Vata Dosha is typically considered the catalyst. Ayurvedic principle considers Pitta and Kapha Doshas as "lame" and unable to move without the motivating force of Vata dosha's cold, dry and unpredictable winds. Also, one of the main symptoms of Vata vitiation is severe pain so commonly encountered in low back pain.

Ayurveda's idea of Vata Dosha as the prime motivating force behind the Doshas and disease process. When we consider the power and unpredictability of Wind in our environment and its ability to cause drastic change in all the elements, it makes sense to use this analogy to express changes within the microcosm of our bodies.

Vata Dosha has five sub-types: Prana Vayu, Udana Vayu, Samana Vayu, Vyana Vayu, and Apana Vayu. Apana Vayu controls the entire pelvic cavity and its surrounding organs, bones and ligaments. The main site of accumulation for Vata Dosha is the large intestine and this organ is in the area of Apana Vayu's windy domain. When Vata Dosha is provoked via poor diet, stress, traveling & jerks in the body, emotions, or seasonal factors, Apana Vayu can possibly express itself as lower back pain. Vata can enter into the ashthi (bone) or mamsa (muscle)

tissue and carry Pitta and Kapha along for the ride so to speak. It is this factor which will influence the particular individual disease expression.

KATI BASTI

The procedure in which warm medicated oil is made to stay over Kati Pradesha (Lumbo-sacral region) for certain period is called Kati Basti.

Indications

• Kati Shula (Pain in low back), • Kati Griha (Stiffness in low back), • Lumbar Spodylosis, • Lumbar Spondylolisthesis •Prolapse (herniation) of inter-vertebral disc (Slip disc)
• Compression of Nerve Root • Lumbar canal stenosis

Contra-indications

• Jwara (Fever), • Chardi (Vomiting), Atisara (diarrhea), • Tuberculosis of spine, • Persons who cannot lie down in prone position, • Very young and very old persons, • Extremely weak persons, • Pregnant women

Materials Required

• Masha pishta (Black gram powder) – 1 Kg
• Big size plate – 1, • Vessels (2-3 litre Capacity) – 2
• Service spoon – 1, • Abhyanga Table – 1
• Nadi Sveda Yantra (full Set) – 1, • Towels, Bed sheets – 1 • Stove – 1, • Cotton

Medicaments required

• Mahanarayan Taila / Dhanwantharam taila – 2 litres • Karpooradi taila – 100 ml., • Ksheerabala Taila – 200 ml. • Dashmoola Kwath churna – 500 gms • Rasnadi Kashaya churna – 100 gms

Procedure of Kati Basti

1. Purva Karma
2. Pradhana Karma
3. Pashchata Karma

Purava Karma

- Black gram powder is to be mixed with sufficient quantity of water to make tight dough.
- The dough is to be made into a slab like structure havin ½ inch thickness, 3 ½ inch width and 50-60 cm length. A circular ring should be made and kept on a plate. This is Kati basti Yantra.
- Then the selected patient should be subjected to massage with medicated oil over full body specially on back and lower limbs for about 20-30 minutes.
- Nadi sveda or Patrapinda sveda should be done on the low back and legs for about 15 minutes. The body should be wiped off with clean and dry cloth/towel.
- Ask the patient to lie down in prone position comfortably and the body should be covered with bed sheets/ blankets except the face, head and low back.
- Then the Kati basti yantra should be slowly kept on the low back. The bottom portion of the circular ring should be made leak proof using fresh paste of black gram.
- Take 1- 1 ½ litre of medicated oil in a vessel and make it luke warm.

Pradhana Karma

- Gently pour the warm medicated oil into the ring with the help of service spoon and fill up to ¾ th of the yantra. Heat the remaining oil in the vessel. Maintain maximum tolerable temperature on the low back taking out little quantity of oil and replacing with warmer oil. This should be continued for about 30 to 40 minutes. Instruct the patient not to move during the treatment.
- Maintain silence or play a low pitched healing music during the therapy.
- Observe sweating on the face and other part of the body.

Pashchata Karma

- Take out the oil from the ring with service spoon. The bottom portion of the remaining oil may be taken out by using cotton.
- Gently take out the Katibasti yantra from the low back and also the adhering black gram paste.
- Apply little quantity of medicated oil on the low

back and do very soothing massage for about a minute.
- Wipe off with dry towel, then with wet hot towel and then again with dry towel.
- Ask the patient to slowly turn and lie down on his back (supine position) and take rest for 15 minutes. • He/she may be asked to take bath with luke-warm water after one hour and the light food.
- Physical exertion should be avoided specially forward bending, lifting weight, etc.
- He may be advised to do Shalabhasana (Locust posture), Bhujangasana (Cobra pose).
- Katibasti therapy may be repeated daily for 7-14 days.

Scientific Explanation

Ayurvedic medicated herbal oils are Ashwagandha / Bala oil and Mahanarayan Oil. These oils have been used clinically for thousands of years for providing lubrication to the affected area, for relief of pain and to increase the healing capacity of the body. The healing aspect of touch is a crucial form of therapy in Ayurveda, and the use of massage or "Abhyanga" to stimulate the body's innate healing intelligence can act as a powerful catalyst for rejuvenation in chronic pain scenarios. The Abhyanga (massage) slowly releases the disc into its normal position and strengthen the muscles, ligaments and tendons. This also works for spondylosis and spondylitis by rejuvenating the degenerated cells and removing the compression. The Ayurvedic medical text Charaka Samhita states that Abhyanga (massage) can be used to decrease the effects of aging, nourish and rejuvenate the body, increase longevity, strengthen the body's ability to adapt and recover from stress, stimulate the internal organs and circulation and pacify and harmonize Vata, Pitta , and Kapha.

- Katibasti is a combination of medicated snehana(Oleation) and svedana (Steam) therapy and it is known for reducing the vitiation of Vata Dosha.
- It relaxes the muscles, ligaments and tendons.
- Reduces the pain and stiffness by the effect of medicinal properties of oil, steam and constant heat of the oil on the back for certain period specially releasing the pressure on the compressed nerve roots in the lumbo-sacral region.
- Patient's subjective feeling, range of movements, comparison of X-rays/MRI may prove the effectiveness of Katibasti.

Clinical observation on the effect of Katibasti

Patient's suffering from Katishula and Gridhrasi (Sciatica), Lumbar Spondylosis, PIVD were treated in IPD & OPD of Ayurveda Department, Holy Family Hospital, New Delhi.

Patients who took only oral medicines, massage & fomentation at home were grouped under Group A. Whereas, patients who took oral medicines, Snehana, Svedana and Katibasti Treatment in the hospital were grouped under Group B.

YEAR	NO. PATIENTS	GROUP-A	GROUP-B
2009	1171	674	497
2010	920	542	378
2011	1016	563	453
2012	1342	788	554
TOTAL	4449	2567	1882

OVERALL RESPONSE OF THE KATIBASTI TREATMENT (IN 2012)
TOTAL NO. OF Pts.- 4449
Group-A – 2567
Group – B – 1882

Response of Treatment	Group-A No. of Pts.	Group-A No. of Pts. (%)	Group-B No. of Pts.	Group-B No. of Pts.(%)
Mild Improvement	1027	40%	470	25%
Moderate Improvement	770	30%	565	30%
Marked Improvement	770	30%	847	45%
TOTAL	2567	100%	1882	100%

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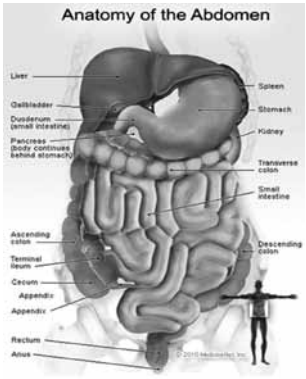
Abdominal Pain

Abdominal pain is pain or discomfort that a person feels anywhere between the lower chest to the distal groin.



What are the ways to describe abdominal pain?

Abdominal pain is generally described as:

1. The location of pain,
2. The quality or type of pain
3. The intensity of the pain
4. Does the pain radiate anywhere?
5. Does the pain come and go?
6. What makes the pain better or worse?

It is important to understand that although many times abdominal pain does not represent a serious problem, at other times the pain indicates a medical emergency. Discerning the difference between serious and non-serious causes of abdominal pain is sometimes a difficult challenge that you as a doctors face.

First, to understand the complexity of the diagnosis, a basic knowledge of the abdomen and its contents is needed. The illustration below is a diagram of the abdomen and most of its contents. The diagram also shows the various areas of the abdomen that help define the location of pain and discomfort.

Location

The abdomen can be roughly subdivided into 9 regions. Pain in that region helps in making a diagnosis of origin of organ and cause of pain.

1. Right Hypochondriac: Liver, gall bladder, small intestine, ascending colon, transverse colon, right kidney

2. Epigastric: Esophagus, stomach, liver, pancreas, small intestine, transvers colon, right and left adrenal glands, pancreas, right and left kidneys, right and left ureters, spleen

3. Left Hypochondriac: Stomach, tip of liver, tail of pancreas, small intestines, transverse colon, descending colon, pancreas, left kidney, spleen

4. Right Lumbar: Tip of liver, gall bladder, small intestine, ascending colon, right kidney

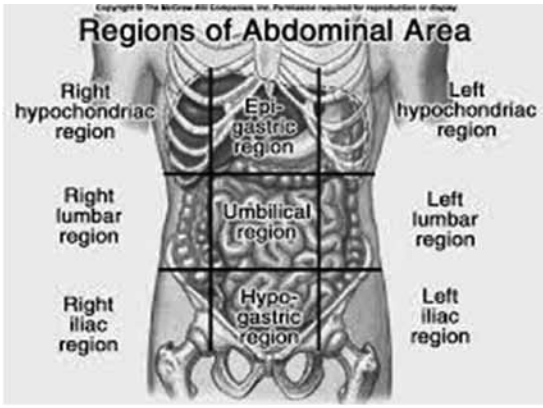
5. Umbilical: Stomach, pancreas, small intestine, transverse colon, pancreas, right and left kidneys, right and left ureters

6. Left Lumbar: Small intestine, descending colon, tip of left kidney

7. Right Iliac: Small intestine, appendix, cecum and ascending colon; F- right ovary, right fallopian tube

8. Hypogastric: Small intestine, sigmoid colon, rectum, right and left ureters, urinary bladder; F- uterus, right and left ovaries, right and left Fallopian tubes; M- vas deferens, seminal vessicle, prostate

9. Left Iliac: Small intestine, descending colon, sigmoid colon; F- left ovary, left Fallopian tube



Type

The type of pain may give some clue as to the cause of abdominal pain. There are several types of pain: sharp, dull, stabbing, tearing, cramps, twisting, pressure, and bloating but patients may describe many others.

Intensity

The intensity of the pain is described on a scale of 1 to 10, with 10 as the most pain (causes crying and inability to function or move, for example). The intensity of pain may be characterized as constant, intermittent, variable, and changed by movement, eating, bowel movements, walking, or modified by other situations like stress or certain medications.

What are the causes of abdominal pain?

There are several causes of abdominal pain. The following are lists of causes of abdominal pain (not all inclusive), grouped into the area of the abdomen were patients often say their pain is mainly localized:

Upper abdominal pain (right, left, both sides, center, or pelvic indicated by R, L, B, C or P)-

• Angina (reduced blood flow to the heart) - RLBC,•Cholangitis(bileductinflammation) - RC, • Cholecystitis (gallbladder inflammation) - RC, • Duodenitis (upper small intestine inflammation) - RC • Food Poisoning - C • Gallstones - R • GERD (gastro-esophageal reflux disease) - C

- Heart attack - RLBC, • Hepatitis - RC
- Hiatal hernia - C, • Intestinal obstruction - RLBC, • Injury - RLBC
- Liver cancer - RC, • Mesenteric ischemia (decreased blood flow to the intestines) - RLBC, • Non-ulcer stomach pain - C
- Pancreatitis (pancreas inflammation, cysts) CRLB • Peptic ulcer – C
- Perforation Peritonitis RLBCP
- Pericarditis (inflammation of the heart's covering tissue) - C
- Pleurisy (inflammation of the lung's membrane) - RLBC
- Pneumonia - RLB
- Pneumothorax (lung collapse) - RL
- Pyloric stenosis (in infants) - RC
- Thoracic aortic aneurysm - LC

It should be note that many causes of perceived abdominal pain do not come from sites in the abdomen. This is especially evident with upper abdominal pain that occurs in an organ and/or organ systems close to the upper abdomen like the lower part of lungs (pneumonia) or occasionally heart problems [angina, heart attack].

Lower abdominal pain (right, left, both sides, center or pelvic indicated by R, L, B, C, P)

- Appendicitis - RC
- Cancer - RLCP
- Crohn's Disease - LC
- Diverticulitis - RLB
- Ectopic pregnancy - RL
- Endometriosis - CRLBP
- Inguinal hernia - RLB
- Intestinal obstruction - RLC
- Injury - RLBCP
- Kidney Infection - RL
- Kidney Stones - RLBP
- Mittelschmerz (pain- associated with ovulation) - RLCP
- Ovarian cysts – RL
- Perforation Peritonitis RLBCP
- Pelvic inflammatory disease (PID) (infection of the female reproductive organs) - CRLP
- Pregnancy - CP
- Salpingitis (inflammation of the Fallopian tubes) - RL

• Thoracic aortic aneurysm - LC

Unfortunately, some of the above causes are not well localized and the patients only say the pain is "'everywhere." The clinical suspicion and diagnostic modalities help in making a diagnosis in such patients even more important.

What are the methods used to diagnose abdominal pain?

The key to diagnosing abdominal pain is to identify the underlying cause of the pain. To reiterate, the patient's history and physical examination will help to narrow the choices and further tests to get to final

diagnosis.There are a battery of tests which can be done but judicious selection of a test is mandatory to establish a diagnosis early and wasting minimal resorses.

Blood tests - Haemogram, LFT, KFT, Blood sugar, Serum amylase , serum lipase, serum electrolytes

Urine tests – Urine R/M, Urine C/S, Urine pregnancy test(women if abnormality in periods)

Radiological tests- they play a important role in establishing a diagnosis. They include Abdominal Xray –Standing and lying down, Chest Xray (standing including both domes of diaphragm), Ultrasound whole abdomen (One of the most important and early investigation), CT scan with oral and IV contrast.

Other studies may include an MRI, Barium/ Gastrograffin X-rays (upper and lower), various types of endoscopic procedures and biopsy of tissues.

Infrequently, a surgeon may need to examine the abdominal cavity with a laparoscope (Diagnostic laparoscopy) or open the abdomen surgically.

Treatment

In acute pain, the aim is to relieve the patient of agony along with coming to a diagnosis.

Analgesics – Pain killers, anti inflammatory and anti spasmodic drugs are mainstay of treatment.

Anti emetics and antacids if patient has nausea and vomiting. May require to insert ryles tube if vomiting continues especially if intestinal obstruction is suspected.

Antibiotics if infection is suspected

Iv fluids if patient is dehydrated or if patient is kept nil by mouth to give rest to the intestine

Insert Foleys catheter for strict urine output charting.

Surgery – surgery should be planned in emergency or routine setting on establishing the diagnosis if surgery is the cure.

In chronic/ recurrent pain, we treat the underlying cause of pain.

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Transplantation of Human Organs Act In India

The transplantation of an organ from one body to another is known as the organ transplant. The person who gives the organ is called the donor while the one who receives is called the recipient. Organ transplant is done to replace the recipient's damaged organ with the working organ of the donor so that the recipient could function normally. There is a great need for human organs for transplantation. In fact, the need far exceeds the supply of transplantable organs.

Legally, organ donation can take place from living, genetically-related individuals; from living, unrelated individuals in special circumstances where no unauthorized payment is made to the donor; or from cadavers. Living tissue deteriorates rapidly when it loses its blood supply, and organs need to be cooled and transported for implantation into the recipient within a limited number of hours. Short transfer time, entailing removal of organs from 'beating heart' donors, was made possible by the acceptance of 'brain stem death' as death.

There are several reasons for the shortage of organs. Perhaps the most common reason is that people are hesitant to donate organs. There are other reasons as well: for example, physicians may neglect to inquire of family members whether they would consent to donating organs when their loved one dies. In other cases, the deceased's wishes to donate his or her organs may not be known by those in the position to act on those wishes.

To attempt to overcome the uncontrollable trade in organs the Indian parliament passed a bill in 1994, in keeping with the WHO guiding principles, prohibiting commercial dealings. There are restrictions for removal and retrieval of human organs and also regulations of hospitals involved to ensure transparency by all concerned. The aim of the Transplantation of Human Organs Act is "to provide for the regulation of removal, storage and transplantation of human organs for therapeutic purposes and for the prevention of commercial dealings in human organs".

Organ transplant law does not allow exchange of money between the donor and the recipient. According to the Act, the unrelated donor has to file an affidavit in the court of a magistrate stating that the organ is being donated out of affection. After which the donor has to undergo number of tests before the actual transplant takes place. The Authorization Committee set up for the purpose ensures that all the documents required under the act have been supplied. If it is found that the money has been exchanged in the process then both the recipient as well as the donor is considered as prime offenders under the law. According to the Indian law, organ sales are banned and therefore no foreigner can get a local donor.

THOA limits live transplants to three categories: relatives by blood, spouses, and those who donated "out of affection". State authorisation committees are meant to scrutinize all applications for unrelated transplants. Hospitals conducting transplants are supposed to be registered with committees which are also supposed to monitor their functioning.

Every year, almost two lakh people in India need kidney transplants and there are only 4,000 people donating them.

The Hon'ble High Court of Delhi in its order dated 6.9.2004 had set up a Committee to examine the provisions of Transplantation of Human Organs Act, 1994 and the Transplantation of Human Organs Rules, 1995. The report was submitted on 25.5.2005. A National Consultation was held on 18.5.2007 and the report was submitted in the second fortnight of August, 2007. The recommended changes required amendments in the Transplantation of Human Organs Act, 1994 and the Rules framed there under. These changes are intended to facilitate genuine cases, increase transparency in transplantation procedures and to provide deterrent penalties for violation of the law.

In so far as the Act is concerned, the following amendments have been proposed:

i) To empower Union Territories, specially Government of NCT of Delhi to have their own appropriate authority instead of DGHS and /or Additional DG (Hospitals).

ii) To make the punishments under the Act harsh and cognizable for the illegal transplantation activities to deter the offenders from committing this crime.

iii) To provide for registration of the centres for removal of organs from the cadavers and brain stem dead patients for harvesting of organs instead of registration of centres for transplantations only.

Most importantly, there is a need to spread awareness at every level. Surprisingly, Nurses and Medical students also do not know about the Act. That means that they need to be educated more about the Act, along with the rest of the population. It has been seen that the willingness to donate organs is directly proportional to the level of education, which needs to be increased.

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Gynae Endoscopy

Gynae Endoscopy is a minimally invasive gynaecological surgery in women. You would be happy to know that now all normal gynaecological surgeries can be done through smaller cuts and without large, unsightly and traumatic cuts. It is also loosely called key hole surgery or pin hole surgery or laser surgery

How is it done?

This novel surgical technique is done using a hi-tech imported specialized equipment.

Who does it?

Gynaecological Surgeons who are specialized and trained in these advanced techniques of surgery and equipment do this surgery.

How is Gynae Endoscopy better than other surgeries?

Less costly
Pain is much less
Less /shorter duration of hospitalization
Back to work and normal life much earlier
No bigscars/ Cosmetically better
Less bleeding (Blood generally not required)
Day care surgery

When is it done and what are the problems that can be treated with this technique?

Abnormal bleeding during periods, painfull periods, Heavy periods, less flow during periods and any menstrual problems
Sterilization without cuts
Patients who cannot bear Children (Infertility)
Uterine Fibroids/Tumors
Ovarian Cysts and tumors
Cancer in women
Blocked fallopian tubes
Ectopic Pregnancy
All gynaecological problems can be diagnosed and treated through Gynae endoscopy. It's a matter of fact that all traditional surgeries can be done by this technique.

Re Thoughts

- Lesser Ego Better Health, Better Person
- Respond Least and Hardly React is mantra for Peace.
- Living In Being Is Simplicity

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"Clinical Evaluation of Hypolipidaemic Effects Of Herbo-Mineral Drug & Lekhana Basti w.s.r. To Obesity'

In Āyurveda there is no term described like Hyperlipidaemia. Yet the Lipids, as described in modern medical science possess properties which very closely resemble with the properties of "Sneha Dravayas" i.e. Meda; Vasa & Majja etc. In Āyurvedic classics, in reference to "Sthaulya Roga" two types of Meda (fat) is described viz.

1. Baddha Meda – The fat which is not mobile and is stored in the form of fat at various places [fat depots/muscles] in the body is termed as "Baddha Meda".

2. Abaddha Meda– The fat, which is mobile & circulates in the body along with blood in the form of lipids [Cholesterol, Triglycerides, LDL, HDL and VLDL etc.] is termed as "Abaddha Meda".

Excessive Abaddha Meda is stored as fat [Baddha meda] in the body in the form of serum triglycerdies in adipose tissues, resulting in accumulation of more adipose tissues & increased adiposity in the body which is termed as Obesity.

The management of obesity with modern drugs is quite unsatisfactory as most of the modern drugs employed in the treatment of obesity possess serious side/toxic effects including precipitation of certain other metabolic disorders. So for effective treatment of obesity through Ayurveda in the patients of Sthaulya Roga (Obesity) M.H.Vatī as Śamana cikitsā & Lekhana Basti as Śodhana Cikitsā (Both Kalpita Yoga) were selected .

MATERIALS & METHODS

The Materials & Methods adopted for research work are summarized below:-

1. Selection of Drugs

The Herbo–mineral formulations "M.H. Vatī" and "Lekhana Basti" (Both Kalpita Yoga) were selected for the study in view of evaluation of their [Lekhana Karma] and Hypolipidaemic effects.

Contents of M.H. Vati

Drug	Botanical Name
1. Vidanga	Embelia ribes
2. Mustaka	Cyperous rotandus
3. Haritaki	Terminalia chebula
4. Amalaki	Embelica officinalis
5. Vibhitaki	Terminalia belerica
6. Pippali	Piper longum
7. Kuṭha	Saussurea lappa
8. Sunṭhi	Zingiber officinale
9. Puraṇa Guggulu	Commifera mukul
10 Haridra	Curcuma longa
11. Rasona	Attium sativum
12. Lauha Bhasma	Ferrum

Contents of Lekhana Bastī

Triphalā Kvātha

Gaumūtra
Madhu
Saidhava Lavaṇa
Yavakṣāra
Vacā + Mulaithī Kalka
Sarṣapa Taila
Retention time 10 to 12 min

2. Dose & Duration of treatment

Dose of M.H. Vatī"- 2 gms T.D.S. with Lukewarm water for 30 days

Dose of Lekhana Basti - 350 - 450 ml. for 15 days

3. Administration of Drug & Basti

45 clinically diagnosed patients of Sthaulya Roga (Obesity) were randomly divided into following three groups.

(1). Group A – 15 obese patients were recommended " M.H. Vatī in the dose of 2 gms T.D.S. with Koṣṇa Jala for 30 days.

(2). Group B – 15 obese patients were administered "Lekhana Basti" for 15 days. Basti was prepared in proper manner as depicted in Aṣtānga Hridaya Sutra Sthāna 19/45 and after proper preparation of patients Basti was administered by appropriate method as, described by Ācārya Caraka in Caraka Siddhi Sthāna : 3/24-25.

(3). Group C – 15 patients were administered "M.H. Vatī"" & "Lekhana Basti" together, Vatī was given for 30 days & Basti was administered for 15 days.

All the patients were advised for Pathya [controlled diet] as per descriptions available in Āyurvedic Classics during and after the course of therapy for proper maintenance of weight.

Follow–up Study-Patients were followed up after 30 days.

4. Inclusion Criteria

1. All obese patients who were diagnosed to be suffering from simple obesity and showing Hyperlipidaemia/ Dyslipidaemia without any complications.
2. Patients of either sex and of any age suffering from clinical condition of Sthaulya.
3. Patients having BMI>24 Kg/m2.
4. Patients having normal Thyroid functions.

5. Exclusion Criteria

1. Having drug induced obesity, Hormonal disorders e.g. Hypothyroidism, hereditary indisposition, Obesity due to certain secondary causes and Pregnant Women.

6. Criteria's of Assessment

All the patients were assessed on following parameters before and after the completion of the clinical trial.

a. Subjective Improvement - Physical and mental fitness, if produced any, after the course of the treatment.
b. Clinical -classical symptoms of Sthaulya Roga were assessed in patients before and after the trial by grading and scoring pattern.
c. Objective - Body weight ,Body Mass Index (BMI),Raised Hip and Waist Ratio,Skin fold thickness at the level of Biceps, Triceps & Nape of the Neck.
d. Laboratory Investigations -Hb gm%, Blood Sugar F.&PP and Lipid profile,Serum T3, T4, TSH – To rule out Hypothyroidism.

7. Results

1. Subjective Improvement -All the patients of all the three groups revealed considerable growing feeling of well being after the course of therapy, it was more so in the patients treated with Lekhana Basti.

2. Clinical Recovery

- The clinical evaluation of the role of M.H. Vatī" & Lekhana Basti in the management of Sthaulya Roga (Obesity) indicated statistically highly significant over all reduction in the severity of various clinical manifestations in the patients of all the three groups after the course of the therapy.

- Although patients of all the three groups showed highly significant correction in subjective observations but the percentage of improvement was mild (51.8%) in group A, moderate (55.4%) in group B and maximum (60.49%) in group C treated patients.

3. Objective Parameters

- In group A highly significant response ($p<0.001$) was observed in Body weight, Hip & Waist circumference, Biceps & Nape of the neck skin fold thickness. Insignificant response ($p<0.05$) in BMI & Triceps skin fold thickness was recorded in the patients of group A of present series of patients.
- In the patients of group B & group C highly significant response ($p<0.001$) was observed in all objective parameters.
- The statistical data on objective changes (reduction) in 45 cases of Sthaulya Roga revealed an average of 12.65% improvment in group A, 15.25% in group B & 17.12% in group C patients after the therapy.

4. Laboratory Parameters - Lipid Profile

The patients of group A & group B showed insignificant reduction ($p<0.05$) in the level of S.Cholesterol, S.Triglycerides & VLDL, although there was a clinical trend of reduction in the levels of S.Scholesterol, S.Triglyceries & VLDL in the patients of group A & B after the therapy. Clinical evaluation in the patients of group A & B showed significant elevation in HDL levels & highly significant reduction in the level of LDL. This shows Hypolipidaemic effect of these drugs on one hand and strong cardioprotective effect on the other.

- The patients of group C reported significant reduction in the levels of S.Chelesterol & Significant elevation in the level of HDL. There was highly significant reduction in the levels of S.Triglycerides, LDL & VLDL after the course of therapy. These findings suggest potent hypolipidaemic activities of the contents (drugs) of Medohara Vatī & Lekhana Basti. This may be termed as Lekhana Prabhāva of these drugs. As a result there was statistically significant correction in most of the clinical manifestations of Sthaulya (Obesity). As already stated these drugs have revealed strong cardioprotective effect in the patients of group C also.

- The overall total % of correction in lipid profile was maximum (17.35%) in group C, moderate in group B (8.89%) & minimum (8.03%) in patients of group A after the course of the therapy.

  Another very important observation during the trial was that several patients reported passing out of intestinal worms through rectum when they were administered Lekhana Basti or M.H. Vatī". This is quite possible because Vidanga is one of the contents of these formulations, which is a known & potent antihelminthic drug described in Āyurvedic texts. The elimination of intestinal worms further helps in improving the normal physiological functions of the gut, which are supplemented by various Dīpana & Pācana drugs used in these formulations viz. Kutakī, Śunṭhī & Pippalī etc.

CONCLUSIONS

Therefore, it can be concluded that M.H. Vatī" & Lekhana Basti are potent remedies for the management of Sthaulya Roga (Obesity) as these possess potent Hypolipidaemic activities.

A big **thank you!**

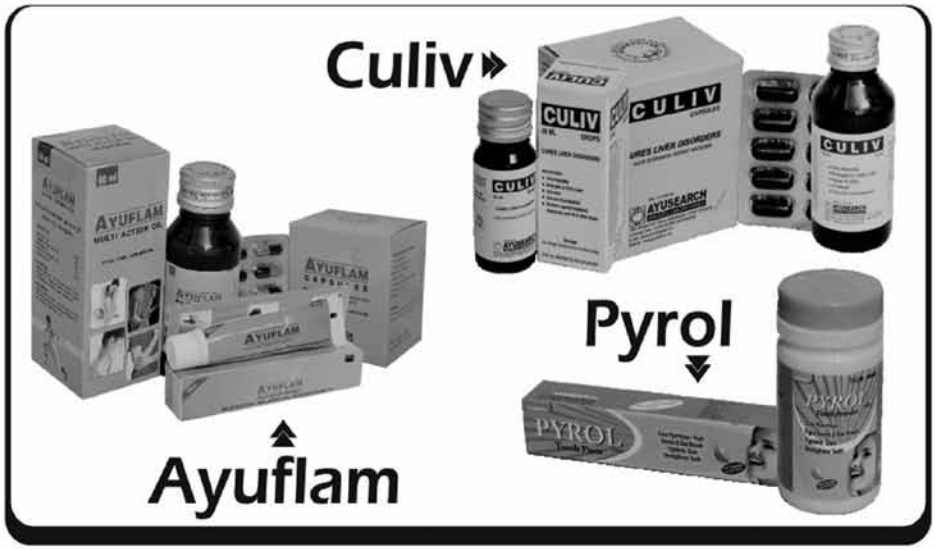
For your

Trust Suggestions

Feedbacks

Appreciations

With best compliments from makers of



Thank you for your valuable support

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Standardisation of Crude Drugs

Need of standardization of Ayurvedic drugs in special & Ayurved philosophy in general is very much today. Having potentials of becoming word's medical alternative in years to come, Ayurved is looked upon as an important science of tomorrow. At the same time commercial malpractices have entered in the field of propogation of Ayurved. Herbal or Ayurvedic adjective increases the prize of any drug ten times. Mere use of one two herb parts cannot make the product Ayurvedic. There are number of herbs which are not clearly identified, some are controversial, many are not in sufficient quantity available for use, leading to practice of using substitutes or even to some; extent adulterated parts. A physician can safely & confidently use the drug for his patients, if only standardization at all the three levels guarantee him about purity of the drug, which is possible only after adopting universally accepted methods. He also will need consistency in the supply of standard raw material and the final product.

The standardization is at 3 stages :-

1. Raw material.
2. 2 Manufacturing process.
3. Finished product.

We are considering at present, the standardization of raw material. This standardization needs to be at two main levels.

1. Individual vaidya preparing his own medicine.
2. At industry level where large scale production is made.

It is necessary that, a regular & uniform supply of standard raw material is made available. In industry sophisticated analytical instruments are available, but for an individual, help of well established laboratory may not be possible. It is a need of today that, methods of identification and standardization at individual level are made available.

Ayurved, which is a science of life, deals with the standards (Manam of Good and healthy life style) the very definition of Ayurved.

For maintenance of healthy life style standards of normal Dosh, Dhatu, Mal and Maan is maintained by paremeters like "Sama", "Samyak" and "Yathartham". Aim of ayurvedic management is therefore to restore the balanced or normal (Sama is known as Grahya – Grahyatwa.

Though in Ayurvedic classics microscopic characters of a particular drug are not given, various synonyms and commentator's notes there upon, serve the same purpose of correct identification and mitigation of controversies regarding plants. A synonym 'Chitraparni' indicates multicoloured leaf of 'Prushniparni' (Uraria Pitta), similarly there are numbers of such examples. Synonym 'Chitra Tandul' is for Vidang; Sinhanan for Vasa flower etc. However there has been subjectivity and an element of personal experience based on organoleptic methods of identification. While standardizing drug on Ayurvedic guidelines for wider acceptability across the globe, standardization

using objective and acceptable methods is need of the hour. Moreover in recent times use of herbal medicine is increased considerably because-

They are often only medicines available in less developed areas and 2) They are becoming popular alternatives in more developed areas, meanwhile it has been realized that medicinal plants are a valuable resource for a new product & potential source for new drug and thereby economical development. Hence a comprehensive programme for the standardization regarding cultivation preparation, evaluation, utilization and conservation of herbal medicine needs to be developed.

Some other major factors like genetic variability, biodiversity, storage and usage of plants needs to be considered.

For determination of identity every point of the following list is important. A) Purity :-

Marich & Gulbakshi seeds, because of similar appearance must be identified as separate entities. Haridra & Starch powder need separate testing. Nagkeshar & Buds of Twak may be mistaken for each other. Clove & Mother or extracted Clove has separate identifying characters. These are the examples of same appearance but different actions.

B) Identity :- Chitrak root should be collected after differentiation from other roots.

C) Quality :- Mature clove should be collected after differentiation from other roots.

C) Quality :- Mature clove should be collected after nine years of cultivation. For optimum quality and yield, Chandan should be collected after 20 years. Haritaki needs to be Ghan, Vrutta & Snigdha. D) Mitigations of controversies :- e.g. there are four varieties of Rasna which are used, out of them, standard is Pleusia Lansiolata. Out of sixteen species of Purpataka, Famaria parvitlora is standar. E) Wide Bio-diversity :- The drugs cultivated at different geographic areas have different properties e.g. Shatavari obtained from different geographic areas show different characteristics. Classical galactogenic activity is found only in variety, collected from a specific area. F) Genetic Variability :- Variations in active principles very according to ploidy mutants and hybrids. There is variation in active principles in normal diploid plants and polyploidy plants. Usually the polyploids exhibit variation in morphology e.g. Acorus calamus. Volatile content of this plant is light and 2.1 in diploid variety where as in tetraploid variety is 6.80. It is yellowish brown & viscous. G) Cultivation against wild Growth :- Ashwagandha, Bala, Shatavari, Amala, do have varied properties depeding on the process of cultivation. The wild variety have different properties. Exact analysis of products developed under Green House is yet to be decided. H) Global acceptability & increase export. If we consider the present synario of the steps or ways of standardization Available pharmacopoeias are, 1) British herbal pharamacopoeias are, 1) British herbal pharamacopoeia 2) B.H. compendium 1991. 3) Japanese standards for herbal medicienes 1993 4) Ayurvedic pharmacopoeia of India 5) World Health organisatin guidelines 6) Comprehensive monographs

W.H.O. GUIDENCES : Monograph title

- Botanical Sensory evaluation – Visual microscopy / touch / odor / taste Foreign Matter – foreign plants, foreign animals, foreign minerals Microscopy – Histological observations, histochemical detection.

Physiochemical : TLC Ash – Total, Acid – Total, Acid soluble, water soluble Extractable matter – In hot water, cold water, ethanol Water content & volatile matter, LOD, Azeotropic Volatile oils – By steam distillation

Pharmacological : Bitterness value – unit's eq. to bitterness of std. Solution of quinine hydrochloride. Haemolytic activity – on ox blood by comparison with std. ref, Saponin Astringency – fraction (tannins) that binds to std. Powder Swelling index – In water Foaming index – foam height produced

by 1 Gm. Matter.

Toxilogical : Pestiside residues

Arsenic – stain produced on HgBr2 paper in comparison with std. stain Heavy metals – Cadmium and Lead Microbial contamination – Total Aerobic count

Pathogens – Total Aerobic count

Pathogens – Enterobacteriaceae, E coli Salmonella Aflatoxins Radioactive contamination

Mostly W.H.O guidelines are accepted. The important aspect in the W.H.O. guidelines is TLC. Through TLC, Gas chromatography and HPLC identification of plant product is very much reliable.

Merits of Pharmacognostic standardization

I. It is in consonance with organoleptic methods mentioned in Ayurveda. II. Quicker method for locating active principle. Morphology is concerned with-Ayurvedic description. IV. Cost effective method V. Needs minimum equipments and chemicals VI. Less labourious.

Steps in pharmacognostic standardization :

(a) Macroscopy (b) Morphometry (c) Microscopy (d) Micrometry (e) Histo chemistry (f) Micro chemistry

(b) By using chromatography standardization of plant material is very easy. It's finger printing, Indentification of adulterant is very much possible by TLC. E.g. Guggulu by chromatography we can have standard layer of guggulu, which can be separated from other substances, mixed with it, which will have separate layer. Common adulterant, Gum acacia will have totally different layer.

The pharmacognostics standardization is also recommended by W.H.O. & its merits in pharmacognostic standardization are very useful. However the above methods require sofasicated laboratory techniques. If we want to standardize a drug at grass root level, simple methods such as morphological identification are more useful. These identifications can be done with pharmacognosy. To characterize & standardize botanically the crud drug material, following methods are used.

1. Macroscopy 2. Morphometry 3. Microscopy 4. Micrometry 5. Histo chemistry 6. Micro chemistry

The crude drug is detached from parent plant. Therefore every time morphotaxonomic identity cannot be confirmed.

Various plant organs / parts are used as raw material. The correct type of raw material (with known yield of extractive) is picked. Collected at particular age/ developmental stage and season (mixed with adulterated drugs, either knowingly or unknowingly due to mistakes during collection.) This methods of identification & standardization is very much concurrent with the principles of Ayurved. Sushrut Samhita & Charak Samhita have traced the importance of identification & standardization exactly on the pharmacognostic studies. However use of other sciences for standardization keeping basic principles of Ayurved intact is the need of the hour. Various branches of Pharmacognosy and Botany dealing with morphology, taxonomy, anatomy, histology, cell biology, histochemistry, development Botany, plynology, plant physiology, plant ecology, phytochemistry, plant genetics, plant molecular biology are useful for description. Generalised indentificationis possible as far as exomorphic charcter are concerned e.g. leaf, root, etc. However for standardization of individual plant detail technique of pharmacognostic studies are necessary Examples of individual Bark, Stem, leaves can be considered in next issue.

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Preventive Cardiology – Ayurvedic Perspective

The burden of the diseases like 'Coronary Artery Disease' (CAD) and Diabetes Melltus (DM) is increasing in Indian population. These conditions are almost endemic in India Society. This excess burden of Premature 'CAD' in Indians is due to a genetic Susceptibility mediated through a metabolic Syndrome which consists of hyperinsulinemia, atherogenic dyslipidemia, glucose intolerance, Prothrombin Sate, Central Obesity & Hypertension.

Besides this Urbanization, affluence and changes in the dietary pattern are contributing and associated in increased prevalence of these diseases.

Ayurveda is recognized as a Science of life. It has tremendous potential to become the "Global Preventive Health Care System."

Because Ayurveda's approach is the holistic approach & only the affected organ is not targeted. So in the case of heart diseases and in Preventive Cardiology; the normal functioning of the other body organs & Systems are equally important.

Thus, the Constitutional based lifestyle and seasonal modification in the living is the key concepts iof premorbidial prevention.

The drugs & medicines and other therapeutic procedures come under secondary preventive measures.

Heart is an organ:

Ayurvedic embryology considers Heart is influenced more by maternal factors. The Kapha, Rakta & Mamsa Dhatu are dominant in the structural development of the Heart.

The co-ordination of the vata subtypes is also influencing on the cardiac physiology. Heart is the vital organ & considered as a 'Marma.' It is associated with Pranavaha Strotas and Rasavaha Strotas. It means it is associated with oxygenation and circulatory System. The psychological impact is explained through the association Sadhak Pitta with the Heart. It is the Site of 'Ojas'i.e. Vital Sap.

Therapeutic aspect : The cardio protective herbs are used to target the following pathological events

Agnimandya – Low Metabolism fire, sluggish metabolism.

Ama – Harmful and toxic metabolic byproducts.

Udavarta – Lack of co-ordination between the various types of vata.

Structural deformities

Associated with congenital conditions

Obesity or Medoroga

Generalized debility

Kapha aggreviating conditions

Drugs Should have the following properties to act on the heart.

1. Hridya – Cardiotonic
2. Deepan – Carminatives
3. Pachana – Metabolic regulator
4. Anuloman –
5. Anuloman

6. Virechan – Laxative

7. Balya – Tonifying

8. Rasayana – Immuno modulators

9. Mutral & Shothaghan – Diurteic & Now,

10. To improve the metabolic conversion i.e. to treat the Ama-

The drugs from Deepan & Panchan Categories are Selected. The dry Ginger (ZO), Ajawain (T.C). Hingu (Ferula asafetida) as the single herbs and the combinations like Ajamodadi Churna, Lavanbhaskar Churna, Hingavashtaka Churna, Agnitundi Vati are routinely used.

2) In the conditions like impaired Lipid profile i.e. dyslipidemia, hypercholesterolemia.-

The drugs like Lashuna (Garlic Allium Sativum), Guggul (Commiphora mulkul) as the single herbs and the combinations like Ovadi Guggul, Triphala Guggul, Arogyavardhini Vati are used in practice.

3 In Renal dysfunction-

In the conditions like congestive cardiac failure the Diuretics & Decongestive drugs are used. Punarnava

(Boerhavia diffusa), Gokshur (Tribulus terrestris), Haritaki (Terminalia Chebula) are used as single herbs and the combinations like Chandraprabha Vati, Gokshuradi Guggul, Dashamoolarishta, Punarnavasava are utilized for these patients.

4. In the Valvular heart diseases and in Cardiac myopathies-

Herbs like Arjuna (Terminalia arjuna), Ashvagandha (Withania somnifera) and the ash of minerals like Suvarna Bhasma, Abhrak Bhasma, Loha Bhasma, Shringa Bhasma are used.

Hridayarnava Rasa, Brihatvt Chintamani Rasa, Suvarna Sutshekhar Rasa are used I Cardiac arrhythmias & Palpitation.

5. In cardiac complication due to pulmonary cause – The shringarabhra Rasa, pulmonary cause-

The shringarbhra Rasa, Bharangyadi Kashayam, Dashamool Rasayan are used Frequently.

6. Ayurveda has emphasized the conditions like 'Udavarta'-In this condition to regulate the harmony between various vata subtypes, Hingvashtaka Churna, Lavan Bhaskar Churna are routinely used. Gandharva Haritaki Powder or in tablet form can be used for Vatanuloman.

7. Stress – Over activity of sympathetic nervous system is the ultimate cause of these patho physiological events. The Drungs like Brahmi (Bacopa monniera) Jatamansi (Nardostachys jatamansi), Dhamasa (Fagonia Arabica) are used to reduce this sympathetic hyperactivity.

9. Dietary indulgence & nutritional deficiencies are also considered as the predisposing factors. The combinations like Dadimavalesha, Dhartri Rasayan, Kushmandapak, Tapyadi Loha, Balarishta, Madiphal Rasayan can be used.

Panchakarma Therapy-

In addition to above said treatment Panchakarma therapies like Basti (Oleation), Swedan (fomentation), Basti (a medicated enema), Nasya, Raktamokshana (Bloodletting), Hrid-Basti,

Shirodhara, Shirobasti etc. Can be used for better results.

Exercise – People should be encouraged for the regular exercise like walking, swimming & other aerobic exercises.

Yoga – Yoga as we all know it is aimed to unite the mind, the body and the spirit. Mediating & practicing breathing exercises regularly are essential for relaxation in hypertensive reflex to stress.

Life Style – Improving your lifestyle by adoption of ethical elements mentioned in" Achara Rasayana" is must to stay away from mental and physical stress and from eventual hypertension. Thus in an Ayurvedic way the Preventive Cardiology should be explored to live happy, healthy and a long life.

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Joint Replacement Surgery

Joint Replacement Surgery is a very rewarding Orthopaedic surgery. Joint Replacement Surgery literally means replacing a damaged Joint.

Joints like hip, knee, elbow and shoulder get damaged by many pathologies or causes. Damaged joints (END STAGE ARTHRITIS or grade IV Arthritis) signifies a joint that can not regenerate or cure itself or by medicines and physiotherapy. This can cause a lot of pain, dysfunction and morbidity.

Such joints are best dealt with surgically and the damaged surfaces are changed by artificial material made of high density polythelene , metal alloys and fixed with bone cement.

COMMON CAUSES OF ARTHRITIS

- Primary Osteoarthrosis or Old Age Arthritis dueto aging.
- Secondary Osteoarthrosis

Secondary to Trauma and Fractures

- Rheumatoid arthritis
- Tuberculosis and other infections
- Secondary to gouty arthritis
- Ankylosing Spondylitis

Once Arthritis Primary or Secondary destroys the lining cartilage irreversibly it causes unending sufferings,pain and loss of function. Then the natural option to overcome all suffering is to convert the situation to a new normal resembling situation-surgically. The present situation of Advances in this surgery can be summed as Questions and Answers.

Q. How successful is this Surgery?
A. 98.5%-99.5% successful.

Q. How long artificial joints last?
A. 10-30 years depending upon the material and Technique used.

Q. Patient satisfaction-success after surgery?
A. Excellent in 30%. Good in 50%. Fair in 15%-18%. Patient becomes mobile, active and pain-free so as to do daily light duties.

Q. Recovery time after surgey?
A. Patients start moving their joint the next day After the surgery.

- Start walking with frame/stick after one day
- Stitches removed in 2 weeks of the surgey and fully active in 2-3 months after the surgery.

Q. Return to Job after ths Surgery?
A. After one month for sedentary job. Approximately 3 months for rigrous jobs.

Q. Activities and sports after the surgery?
A. Normal walks, climbing and the light low impact Sports are allowed(like swimming, cycling, table tennis).

Q. Risk of Infection?
A. Risk of Infection remains after years of surgery especially in Diabetic patients. Need antibiotic if any dental or urosurgery is undertaken on such patients.

Q. Which joint replacement the most successful?
A. Hip Replacement, Knee Replacement the most Successful followed by elbow and shoulder.

Q. Can one sit cross legged or kneel after hip and Knee replacement?
A. Cross leg sitting squatting are not recommended However kneeling on padded surface is permissible.

Q. Driving after surgery?
A. Six weeks after the surgery

Q. Imported versus Indian joints?
A. Imported joints with latest plastics and ceramics Are better but are more expensive.

Q. Cemented versus Non-cemented?
A. Uncemented hips are preferable in young patients However, knees are preferably cemented.

Q. Cost of surgery?
A. Hip Replacement around 1 to 3 lacs of rupees And Knee Replacement from 1.5 to 2.5 lacs for each joint.

Q. Ideal age for surgery?
A. Any age after 50 years depending on urgency and disability.

Q. Can both knees or hips be operated in one Sitting?
A. Yes, if condition demands and patient is fit to undertake both surgeries together.

Q. Blood Transfusion?
A. Yes, around 2 units for each joint especially if Preoperative HB(Haemoglobin) is around 10.

Q. Risk involved?
A. Negligiblerisk if good preoperatively work up is done by physician, cardiologist andanaethetist.

Q. Stair climbing?
A. After the joint surgery, patient can climb the Stairs within a week of the surgery.

Q. Physiotherapy after surgery?
A. It is very important in hospital and after discharge.

So overall the results of the surgery are very rewarding and can transform the life of the patient.

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Need of 'THE HERB'

Lasun (Hindi), Garlic (Eng.), Allium Sativum Linn (Latin)

Text Reference: 1. Sushrut Sanhita Chapter - 46 2. Ashtang Hridya 3. Kashyap On excess fat (Medorog, Overweight or Obesity)

Generally in use: During cooking veg or non veg. as spice as well as flavoring substance.

Chemical Composition: Volatile oil besides Sulpher Alkaloids eg. Allyl – Propyl sulphide & Diallyl – Disulphide

Therapeutics: Digestive, Anti-flatulent, Deworming, Aphrodisiac, Anti-Arthritic, Prevention & Cure during Stroke, C.N.S. Disorders, Thrombolytic. Anti Oxidant (Rasayan Anti Aging) as it cleanses body channels (Strot) at Organ level (G.I.T.), at Vascular level (Decreases Cholesterol L.D.L., Triglycerides enhances H.D.L.), at Tissue level (Bone, Muscle, Nerves). Hence a cardiac & general tonic specially during winters to ward off Heart Attacks, Anti Rheumatic, It prevents Carcinoma also. Used for pain and inflammation with local application.

Dose: Chopped 1 fresh clove of 3-6 gm, oil 1-2 drops. **Don't:** To be avoided during pregnancy, among hot temperament people (Pit Prakriti)

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