

QUESTIONING COMMON USES OF ALTERNATIVE MEDICINES

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ABSTRACT

Indian society has full faith in alternative systems of medicine. Indians are not able to differentiate therapeutic principles, among different systems of alternative medicine. They consider all therapeutic systems are scientific and useful. Efficacy of alternative medicines are not proved by scientific principles, even then Indians are using alternative medicines. After using alternative medicines, many patients claim, they are getting benefit in their health problems and feeling healthy. Actually they are not getting any benefit by alternative medicines. It is placebo reaction or cure of disease by spontaneous recovery or actual benefit is obtained by modern medical science and they give credit to

that alternative medicine that he is using with drugs of modern medical science. Actually, there should be proper animal studies and clinical trials of drug before marketing for all systems of therapeutics.

KEYWORDS: Ayurveda, Homeopathy, Yoga, Scientific Medicine, Uses.

INTRODUCTION

The concepts of scientific medicine changes according to the evidence obtained by scientific study but this is not the case with alternative medicines which are characterized by absence of scientific intellectual evaluation and unchangeability of beliefs. Alternative medicine or Traditional medicine or complementary medicine "denote a practice of cult that follows a dogma, tenet or principle based on theories or beliefs of its promulgator to the exclusion of

demonstrable scientific experience (definition of American Medical Association)."^[1] These traditional or alternative medicines include Homeopathy, Reflexology, Anthroposophical medicine, Orgone therapy, Naturopathy, Aromatherapy, Biochemical Breathing therapy (Pranayam), Ayurveda, Magnet therapy, Music therapy, Chiropractic, etc. "These all cults have common features (1) Absence of scientific thinking (2) Naive acceptance of hypotheses (3) Uncritical acceptance of causation and assumption that if recovery follows treatment, it is due to the treatment and close attention to the personal feeling."^[1] Important alternative systems of medicine, popular in India, are Homeopathy, Ayurveda, Yoga (Pranayam), Tantra-Mantra, worship, religious act and exorcism.

"Ayurveda is an irrational, unscientific therapeutic system and illogical, superstitious life style; represents Indian psyche and Indian culture including use of herbs, metals, diet, panchkarma, astrology, incantations, hymns, religion, rituals, amulets (totaka), mantra-tantra, concepts of supernatural force, spirits and rebirth to improve health and cure diseases by maintaining concentration of vata, pitta and kapha in the body."^[2]

"Accepting Ayurveda is creating a sort of intellectual dishonesty among the students of the system and leading to confusion of the lay public and a great dissipation of the natural resources."^[3]

"In United State of America, herbal medicines have been regulated under the Dietary Supplement Health and Education Act (DSHEA) of 1940. According to this act, herbal medicines are not evaluated by the FDA and these products are not intended to diagnose, treat, cure or prevent diseases."^[4]

"About Homeopathy, it has been concluded that it is useless therapeutic system. It has no therapeutic effect."^[5, 6, 7, 8]

"Regarding Pranayam, hypoventilation and hyperventilation, both are harmful to body. Extra oxygen, taken by rapid and deep respiration is not advantageous to body."^[9, 10] Tantra-Mantra, Exorcism, Totaka, Worship therapy, and religious act to treat diseases are primitive and foolish concept.

"Actually it is useless to use alternative system of medicine. Modern medical science is the only scientific therapeutic system which is beneficial to mankind."^[11, 12, 13] Use of alternative system of medicine is suicidal because it obstructs the use of modern medical science.

Indian Society Accepts Alternative Medicine

Indian society has full faith in alternative systems of medicine. Indians are not able to differentiate therapeutic principles, among different systems of alternative medicine. They consider all therapeutic systems are scientific and useful. They do not know, "Public acceptance alas has little to do with demonstrable efficacy."^[14]

Indians are highly religious, rigid, traditional, and primitive. "They are ready to worship congenital defective newly born baby as goddess. They presume it as wonder of God."^[15]

Dignitaries, celebrities, leaders, ministers, and experts of modern medical science in India, without knowing truth, have been advising to the society to use alternative medicines and yoga. "One Governor of a state, said, that world is using Indian Yoga and they became healthy while Indians are not understanding importance of Yoga. One central minister said that yoga should be taught to children since beginning. Vice President of India says that hepatitis, AIDS, and cancer can be treated by Pranayam."^[16]

"Mannat Baba, by using touch therapy, treated patients of depression, stress, diabetes, blood pressure, heart diseases and drug addiction."^[17] "There was continuous advertisement of touch therapy which attracted a big population"^[18]

"In one temple, a god, Hanuman treats many incurable diseases."^[19]

"One doctor, who was honored by President and Prime Minister of India, was treating epileptic patients by psychology, Ayurveda, herb and Naturopathy. He was very popular and treated many thousand patients. I have seen his advertisement in many national newspapers."^[20] Ultimately a police complaint had been lodged against him and he was in prison due to fraud in treatment.

"One Governor advised people to use Ayurveda & Homeopathic drugs."^[21]

"Thousands of patients reach Mahadeva temple, take bath and get cured many diseases."^[22]

Actually Indian news papers are filled with news and advertisement claiming effectiveness of alternative systems of medicine. Indian Public convinced about usefulness of Ayurved, Homeopathy, Tantra-mantra, worship, religious act, Astrology, Pranayam and Yoga without understanding the truth. Experts of modern medical science in India also promote alternative

medicines. They also do not understand basic principles of therapeutics. And they are business oriented; patients are referred to their clinics by doctors of alternative medicines. By opposing alternative medicine, they do not want to lose their business. That's why they want to remain silent.

There is continuous advertisement in Doordarshan regarding use of Ayush (Ayurveda, Yoga, Unani, Siddha and Homeopathy) by Government of India. Many colleges are providing degrees of alternative medicines and hospitals, managed by state and Central Government are also providing services by experts of alternative medicines.

"Madness, tuberculosis, paralysis, cancer and other severe diseases have been treated in the temples, in India"^[23]

"Vice President of India is saying; use all type of therapeutic systems including Ayurveda and Homeopathy in combination, in treatment of cancer."^[24]

"Central Council of Research, Homeopathy; Department of Ayush advised to all hospitals of homeopathy to use Homeopathic drugs in swine flu, malaria and chikungunya."^[25]

"President of India said in a speech, Ayurvedic system is a boon to India. It is very effective."^[26]

Ridiculous Systems of Alternative Medicine

There are many other alternative systems of medicine, accepted and popular in India, which are illogical, useless and ridiculous. "In a temple, incurable diseases are treated by making patients drink ghee along with chanting."^[27]

"A SADA SUHAGIN BABA, decorated himself with the ornaments like a bride, treats patients with the help of fenugreek (MAITHY) and incense stick (AGARBATTI). He advised to eat MAITHY (fenugreek) daily for eight days. All types of patient were coming for treatment."^[28]

"Cow urine is also popular in India as a drug. Cow urine is advised in jaundice, indigestion, constipation urinary trouble, swelling, leprosy, liver problems, tuberculosis, fibroma uterus, Cataract and infertility. It is advised to take cow urine with sugar or salt or iron compound or with TRIFLA powder"^[29]

"There was an opening of "Mantra Healing Centre" at the Maulana Azad Medical College, Delhi, under the Delhi government. Defending the power of 'mantra' and setting up of the healing centre, the NGO has said, it would benefit the patients who had found no cure elsewhere. Modern medicine has no cure for several ailments like diabetes, arthritis, insomnia, allergy, cancer or AIDS."^[30]

"According to Ayurveda, AIDS and cancer can be managed by Ayurvedic treatment. In this methodology; Yoga, Meditation, Acupuncture, Colours, Mantra, HAVAN, should also be used in combination." ^[31]

"One expert uses nail in the treatment of different type of pains. He puts nail on the paper and touches site of pain by it. It has been claimed that hundreds of patients are relieved."^[32]

"In another method of treatment, special shirts are used to treat diabetes and special underwear is used to treat piles similarly shocks, bra, shoes, bed sheets, pillows, soap and other products are used in different diseases."^[33]

"In the city, Hyderabad, thousands of asthmatics looking for a miracle cure for their chronic ailment. Goud family has been dispensing the fish medicine for more than 150 years. The medicine is placed in the mouth of a live fish that has to be swallowed by the patients."^[34]

"In one method, wearing of gems is used to treat diseases. Different type of gems is used to treat different diseases." ^[35]

"Clapping of hands is also used to treat diseases"^[36]

"Cow dung juice, 10 to 15 mg, should be given to females for healthy delivery." ^[37] "Flower therapy, Magnet therapy, Shiyatsu therapy (use pressure created by fingers), falungong therapy (Spiritual system is used), color therapy, RUDRAKSHA and many other type of alternative therapies are also used"^[38]

"One very surprising statement of an expert is regarding side effects of Ayurvedic drugs. In a conference, he said that there are no any side effects of Ayurvedic drugs. It has also been said that YAGYA (sacrifice) can solve all health problems of the world"^[39]

Questioning therapeutic cure of alternative medicines

It is wrong concept in Indian society that alternative medicines are helpful in solving health problems. They do not understand, what is actually treatment?

"Many other systems of therapeutics have come and gone, and the variety of dogmatic principles that they embodied have tended to hinder rather than advance scientific progress. Currently, therapeutic systems that have a basis which lies outside the domain of science are actually gaining ground under the general banner of alternative or holistic medicine."⁽¹⁴⁾ They reject medical model. They focus on subjective malaise, which may be related with disease or not. They depart from scientific principles in assessing therapeutic efficacy.

Therapeutic efficacy of alternative medicines is not proved by principles of modern medical science. "Complementary and alternative medical (CAM) practices include Acupuncture, Ayurvedic Medicines, Dance therapy, Massage, Meditation, Naturopathy, Siddha Medicine, Unani medicine, Yoga, Homeopathy etc. Nonetheless, over the past few decades, thousands of studies have been performed of various CAM approaches including hundreds of trials involving herbal, Acupuncture, or Homeopathy. To date however, no single approach has been proven effective in a convincing way. The vast majority of CAM studies have been seriously flawed by lack of appropriate controls, bias on the part of the investigators, small sample sizes, reliance on highly subjective and non-validated measures of benefit, and by inappropriate statistical tests"^[40]

Efficacy of alternative medicines is not proved by scientific principles, even then Indians are using alternative medicines. After using alternative medicines, many patients claim, they are getting benefit in their health problems and feeling healthy. Actually they are not getting any benefit by alternative medicines. It is placebo reaction or cure of disease by spontaneous recovery or actual benefit is obtained by modern medical science and they give credit to that alternative medicine that he is using with drugs of modern medical science.

(a) Placebo reactions: "A placebo is any component of therapy that is without specific biological activity for the condition being treated. A placebo reactor is an individual who reports changes of physical or mental state after taking a pharmacologically inert substance. Placebo-reactors are suggestible people and likely to respond favourably to any treatment. They have misled doctors into making false therapeutic claims. Some 35% of physically ill and 40% or more of the mentally ill respond to placebo."^[41] These

persons react favorably to any therapeutic intervention. This is the one important reason, why people after taking alternative medicines, claim benefit in their health problems without getting real benefit. "In one study it has been found that those who reacted to a placebo tended to be extraverted, sociable, less dominant, less self confident, more appreciative of their teaching, more aware of their autonomic function and more neurotic than their colleagues who did not react to a placebo."^[41]

(b) Tonics are useless but promoted by different types of alternative system: Tonics are advised mainly in Ayurveda to strengthen body, to increase appetite, to increase memory and mental power, to improve mental or physical inadequacy to decrease stress of life. Worship, RUDRAKSHA, TABIS, black threads around neck etc are also used for these problems. Truth is different. "Tonics and other means are placebo which have no specific action."^[42] They are useless and not having any beneficial effect.

(c) Medicines of alternative systems are taken with drugs of modern medical science: It is very common practice to take medicines of alternative systems with drugs of modern medical science. Patients usually take modern Allopathy treatment and with this, they also use Ayurvedic or Homeopathic drug or go to temple or wear RUDRAKSHA and TABIS. After treatment, they give credit to any treatment in which they have faith.

Sometimes patients take drugs of modern Allopathy in chronic and serious ailments. When treatment is complete, they start taking medicines of alternative systems. Then they say; they are better, healthy and comfortable with alternative systems in comparison to drugs of modern Allopathy. It is very common in cancer patients. In cancer, patients suffer with uncomfortable and debilitating symptoms. When they take chemotherapy and radiotherapy they suffer with side effects of treatment. "When treatment is complete and cancer has been treated then they start taking Ayurvedic or Homeopathic or other treatment. At this time, there are no symptoms of disease and no side effects of drugs, they feel better, and then they say, it is the alternative system which cured them."^[43]

(d) In acute and emergency conditions, alternative medicines are not used: Efficiency of a therapeutic system can be judged easily in the treatment of emergency and acute conditions. In emergency and acute conditions like status asthmatics, status epilepticus, coma, syncope, myocardial infarction, angina pectoris, arrhythmia, acute pain, trauma, haemorrhage, alternative medicines are never used. Supporter of alternative medicines

can answer this question, if these are effective than why alternative medicines are not used in acute and emergency conditions. Actually they are not ready to accept that alternative systems are not effective.

(e) Confusion has been created between allopathic drugs and alternative medicines:

Indian society and Indian personality, both are confused, fragmented and they impersonate others. Cheating and fraud, also important features of Indian Society. Many experts of alternative medicines use drugs of modern medical science in their practice & advertise using medicines of alternative medicine. Sometimes Allopathic drugs are mixed with Ayurvedic and Homeopathic medicines. Patients presume, they are taking Ayurvedic or Homeopathic drugs but actually they take Allopathic drugs. It is very common practice in India, to add one alternative medicine in the prescription of those patients who are taking modern allopathic treatment. Then unnecessary credit of benefit goes to alternative medicines and their experts.

(f) Cure and protection are due to immunity but unnecessary credit goes to alternative medicines:

"A person is said to be immune when he possesses specific protective antibodies or cellular immunity as a result of previous infection or immunization, or is so conditioned by such previous experience as to respond adequately to prevent infection and/or clinical illness following exposure to a specific infectious agent."^[44] And another type of protection given by nature to population is herd immunity. "Herd immunity is the level of resistance of a community or group of people to a particular disease."^[45] "Immunity gives protection to individual from different infective diseases as follow."^[46] One attack of chickenpox gives durable immunity. Second attacks are rare. One attack of measles generally confers life long immunity. Second attacks of measles are rare. Immunity after vaccination is quite solid and long lasting. One attack of mumps, clinical or subclinical, is assumed to induce life-long immunity. A large proportion of population in developing countries seems to acquire active immunity through in apparent infection. Recovery from whooping cough or adequate immunization is followed by immunity. Infections of the respiratory tract are perhaps the most common human ailments. Many of these infections run their natural course in older children and in adults without specific treatment and without complications. Immunity after hepatitis A attack probably lasts for life. Most people in endemic areas acquire immunity through sub clinical infection. Natural infection confers quite effective immunity against cholera. In developing

countries, diarrhea is almost infectious in origin. It is now established that oral rehydration treatment can be safely and successfully used in treating acute diarrheas due to all etiologies, in all age groups in all countries. Unnecessary prescription of antibiotics and other drugs will do more harm than good in the treatment of diarrheas.

Many infections are self limiting and cured spontaneously without any treatment and without complications. In these diseases alternative medicines get unnecessary credit as beneficial treatment. "Most fevers are associated with self-limited infections, such as common viral diseases."^[47]

(g) Nonspecific uses of Ayurvedic preparations: In Ayurvedic preparations, many unrelated uses are mentioned, without explaining mechanism of action and without evidence of clinical trials. For example, "One preparation is advised for pain in abdomen, white discharge, irregularity in menstruation, anemia, swelling in fallopian tube, behavioral problems, blood purifier, loss of appetite."^[48] "Similarly one product is advertised for obesity, blood pressure and diabetes management and also as an antioxidant, vitamin, mineral and also effective in abdominal diseases, liver problems, asthma and aging."^[49] "In one treatment for poisonous snake bite, powder of MANFAL is advised to take orally. Poison of snake will be removed from blood by vomiting, this mechanism has been mentioned."^[49] "One cancer specialist of alternative medicine is advising a cancer drug in all type of cancer. He advises this drug in cervix cancer, uterus cancer, breast cancer, tongue cancer, gall bladder cancer, blood cancer, bone cancer, lung cancer and lymphoma without any side effect."^[50] Such different uses of one preparation; indicate hypothetical uses without scientific study.

(h) Homeopathic treatment in Wart: In wart treatment, Homeopathic drugs are very popular as effective remedy. But reality is different. "Warts are benign neoplasm of skin. Warts are found in approximately 7 to 20% of population. They occur mainly on skin areas unprotected by clothing except for the feet. Warts of several different clinical types are caused by the human papova viruses. Most studies indicate that one third of warts are gone by six months and two third of warts will resolve spontaneously within a two year period. Most warts will eventually spontaneously disappear without leaving any scar."^[51] In this example, warts disappear spontaneously within 6 to 24 months and false reputation will be claimed by Homeopathic drugs.

(i) Ayurvedic system is very commonly used in external haemorrhoids and in proctitis:

Bleeding per anum also occurs in perianal hematoma (thrombosed external haemorrhoids). "The condition appears suddenly and is very painful. Untreated it may resolve, suppurate, fibrose and give rise to a cutaneous tag or burst or continue bleeding. In the majority of cases resolution or fibrosis occurs. Indeed, this condition has been called 'a five day, painful self curing lesion'. Non specific proctitis is characterized by slight loss of blood in the motions. During the day the patient attempts to defecate, with the passage of flatus and a little blood stained faecal matter. Although fortunately, the condition is self limiting."^[52]

(j) Ayurvedic and other preparations are accepted commonly in chronic muscular and bony pains:

"Non articular rheumatism is a group of common conditions, present as pain localized to the aponeurotic attachment of muscle to bone. In the back, localized pain of this kind has been attributed to reflex muscular spasm arising from some deep seated lesion in the spine or fibrocystic nodules. It seems that these conditions are caused by tear in the collagen fibers attaching the muscle to the bone. The tear may be caused by overt injury by the loads imposed in excessive but normal activity (example typing) or by weakening of the tissues following an interruption of their blood supply. In tennis elbow, the patient complains of pain in the elbow. In supraspinous tendonitis, pain is felt in the shoulder and localized tenderness is present. In patellar tendonitis, pain is felt in the knee. Pain and localized tenderness occur under the heel in plantar fasciitis. These all conditions are normally self limiting and person should avoid powerful contraction of the involved muscle."^[53] In these conditions Ayurvedic medicines and medicines of other alternative system are very commonly used, but they are of without benefit. Problems are solved spontaneously.

(k) Alternative system is very commonly advertized in back pain and in cervical pain:

Alternative systems are widely used in cervical and back pain. "In acute low back pain without radiculopathy (injury to nerve), full recovery can expected in 85% adults without leg pain. The prognosis is generally excellent. Spontaneous improvement can mislead clinicians and researchers about the efficacy of treatment interventions. Perhaps as a result, many ineffective treatments have become widespread in the past. For chronic low back pain without radiculopathy, exercise is the main treatment. Psychological and sociological factors are important in the genesis of chronic pain and disability. Back pain

is the most common reason for seeking complementary and alternative treatments and their role, aside from spinal manipulation, remains unclear. A common cause of back pain with radiculopathy is a herniated disc with nerve root impingement resulting in back pain with radiation down the leg. The prognosis of this condition is generally favorable. Serial imaging studies suggest spontaneous regression of the herniated portion of the disc in two thirds of patients over 6 months. As with low back pain, spontaneous improvement is the norm for acute neck pain and the usual goal of therapy is to provide symptom relief while natural healing processes proceed. The natural history of neck pain even with radiculopathy is favorable, and many patients will improve without specific therapy."^[54]

- (l) **In treatment of nausea, vomiting and bacillary dysentery:** Nausea and vomiting, due to overeating, fatty diet and due to indigestion are very common. Many remedies are advised to treat them. In nausea and vomiting due to above causes, vomiting itself is the best treatment. Once there is vomiting, problem is solved. For this, many remedies of alternative medicines are used without getting any therapeutic advantage.

Similarly in bacillary dysentery, different alternative treatments advised, but they are of no use. "Bacillary dysentery or shigellosis is usually a self limiting acute illness characterized by diarrhea with blood and mucus in the feces, tenesmus, fever, intestinal colic and tenderness. Nausea and vomiting may occur to a variable degree. In many patients, the illness is characteristically short, for 12-24 hours, followed by constipation and needs to be treated only with oral rehydration therapy"^[55]

- (m) **In management of hepatitis (liver infection):** In liver disease, it is very common in India to use alternative medicines. Viral hepatitis is a common liver problem. The prodromal symptoms of acute viral hepatitis are systemic and variable. These are anorexia, nausea, vomiting, fatigue, malaise, fever, arthralgia, myalgias, headache, photophobia, pharyngitis, cough, coryza may precede the onset of jaundice by 1-2 weeks. "With the onset of clinical jaundice, the constitutional prodromal symptoms usually diminish. During the recovery phase, constitutional symptoms disappear. Complete clinical and biochemical recovery is to be expected 1-2 months after all cases of hepatitis A and E; and 3-4 months after the onset of jaundice in three-quarters of uncomplicated, self limited cases of hepatitis B and C. Virtually all healthy patients with hepatitis A recover completely with no clinical sequelae. Similarly, in acute hepatitis B, 95-99% of

previously healthy adults have a favorable course and recover completely."^[56]
Unnecessary credit goes to alternative medicines, if they are taken.

(n) Ayurvedic Medicines & Yoga in treatment of diabetes, hypertension and obesity:

Ayurvedic medicines & Pranayam are advised very commonly in hypertension, diabetes and obesity. They never claim acute benefit. They usually claim slow therapeutic effect and these systems are used for prolong duration.

In blood pressure & diabetes, patients usually use these medicines with the drugs of modern medical science. Beside this, it is advised to patient to restrict calory consumption, salt restriction and regular exercise. Main therapeutic effect of alternative medicines is due to food, salt, and fat restriction and exercise; not due to medicinal content.

The advice of food, salt and fat restriction and weight reduction are responsible for many therapeutic benefits. It is neither Pranayam nor alternative medicines which is beneficial. "Obesity has major adverse effects on health. Obesity is associated with an increase in mortality, with a 50-100% increased risk of death from all causes compared to normal weight individual, mostly due to cardio-vascular diseases. Obesity, however, is a major risk factor for diabetes, and as many as 80% of patients with type 2 diabetes mellitus are obese. Weight loss and exercise increase insulin sensitivity and often improves glucose control in diabetes. Obesity is also a risk factor for hypertension, coronary disease, stroke and congestive heart failure.

Obesity is frequently associated with non alcoholic fatty liver disease. Severe obesity may be associated with obstructive sleep apnea and the obesity hypoventilation syndrome. Obesity is also associated with higher mortality from cancer and increased risk of osteoarthritis."^[57]

"Poorly controlled type 2 diabetes, hypertriglyceridemia, obstructive sleep apnea and symptomatic peripheral edema would be immediately improved with rapid weight loss."⁽⁵⁸⁾ "Even modest weight loss can lead to a reduction of blood pressure and increase in insulin sensitivity. Regular physical activity facilitates weight loss, decreases blood pressure, and reduces the overall risk of cardiovascular diseases."^[59]

Advertisement of Ayurvedic drugs rectify my arguments against efficacy of these medicines "In one similar advertisement, it has been said; this is effective in obesity, joint pain, blood pressure, diabetes; and it is an alternative of sugar."^[60]

Actually these facts should be known to general public. "In diabetes, some overweight patients with asymptomatic hyperglycemia require only simple caloric limitation to control their disease."^[61]

After 15 to 20 years of hyperglycemia diabetic neuropathy may develop in diabetic patients "Main symptoms include numbness, paresthesias, severe hyperesthesias, and pain. The pain which may be deep seated and severe, is often worse at night. Fortunately, extreme pain syndromes are usually self limited, lasting from a few months to a few years."^[61]

(o) Alternative medicine in sexual problems: Ayurvedic drugs are most commonly used in different type of sexual problems. To discuss openly about sexual problems is not accepted in Indian Society. That's why Indians are fooled by advertisement. Actually sexual problems are only two. One is impotence and second is premature ejaculation. In both these problems psychological factors are important. "In advertisements, mentioned sexual problems are (1) increase masculine power (2) increase excitation (3) increase semen (4) increase sperm (5) night pollution (6) masturbation (7) small or thin sex organ (8) skew sex organ."^[62] These are actually not sexual problems. People unnecessarily think of these sexual problems and take treatment without any need.

"Hidden advertisements for sexual medicines are also used. Increase bodily strength and satisfaction, for only male, weakness of aging, increase sexual powers are few examples."^[63]

Another problem is related with these alternative systems. There is no feedback regarding improvement and there are no controlled clinical trials which decide efficacy.

(p) Homeopath claims treatment of HIV by Homeopathic medicine: "Homeopaths are claiming treatment of HIV and AIDS by Homeopathic drugs."^[64] "In one research work on AIDS, one Homeopath claimed reduction of number of HIV virus by Homeopathic drug."^[65]

Actually these experts do not know how research methodology is used. First they should know, what is the normal course of disease? when drugs are not used. For this, control cases are used in research work. In HIV patients, reduction in the number of virus after infection is the normal process. "The combination of viral pathogenic and immunopathogenic events that occurs during the course of HIV disease from the moment of initial (primary) infection through the development of advanced stage disease is complex and varied. It is important to appreciate that the pathogenic mechanisms of HIV diseases are multi -factorial and multiphasic and are different at different stages of the disease. The acute burst of viremia and wide dissemination of primary HIV infection may be associated with an acute HIV syndrome, which occurs to varying degree in ~50% of individual with primary infection. This syndrome is usually associated with high levels of viremia measured in millions of copies of HIV RNA per milliliter of plasma that lasts for several weeks."^[66]

"Actually number of virus is increased during initial stage but within one year number of virus is decreased without any treatment."^[67] But "virus never eliminated completely from the body. Rather, a chronic infection develops and persists with varying degrees of continuous virus replication in the untreated patient for a median of 10 years before the patient becomes clinically ill."^[66] These facts were not known to Homeopathic experts, that's why they were claiming wrongly about effectiveness of Homeopathic drugs in HIV. Some Homeopaths may claim total absence of HIV virus by Homeopathic drug treatment. Actually it must be due to absence of highly sensitive methods like demonstration of cell associated HIV RNA in immunocompetent cells and macrophages; highly sensitive assays for plasma viremia and highly sensitive molecular techniques; to detect plasma viremia in Indian labs.

(q) Alternative systems of medicine reduce plasma creatinine in Kidney Failure:

Ayurveda, Homeopathy, worship, Tantra-Mantra, Yoga are being used in India for treatment of kidney failure and by these methods, plasma creatinine and urea is reduced. After that, quacks claim about improvement of kidney functions. But it is not the truth. Reality is different.

(AKI) Acute Kidney Injury or acute renal failure is characterized by the sudden impairment of kidney function resulting in the retention of nitrogenous and other waste products normally

cleared by the kidneys. In AKI, there is an increase in the BUN (blood urea nitrogen) and Scr (Serum Creatinine), and reduction in urine volume.

"The presence of AKI is usually inferred by an elevation in the Scr concentration. AKI is currently defined by a rise of at least 3 mg/dL or 50% higher than baseline within a 24-48 hour period or a reduction in urine output to 5 ml/Kg per hour for longer than 6 hours. The distinction between AKI and chronic kidney disease (CKD) is important for proper diagnosis and treatment. Clues suggestive of chronic kidney disease can come from radiological studies or lab tests. AKI is frequent complication in patients with CKD."^[68]

"The clinical course in acute tubular necrosis can be divided into an initiating phase, a maintenance phase, and a recovery phase. Oliguria characterizes the maintenance phase of acute renal failure. It lasts an average of 10 to 14 days. However, the oliguric phase may be as short as a few hours or as long as 6 to 8 weeks. Major improvement in renal function occurs within the first 1 to 2 weeks of the recovery phase, renal function continues to improve for up to a year following acute renal failure. However the vast majority of patients achieve normal renal function."^[69] The mortality rates in large series of patients with acute renal failure vary from 30 to 60 percent. Infections, complication resulting from fluid and electrolyte disturbances, gastrointestinal hemorrhage and progression of the primary underlying disease are the major causes of mortality in acute renal failure."^[69]

"The kidney possesses remarkable capacity to repair itself after even severe, dialysis requiring AKI. Survivors of an episode of AKI requiring temporary dialysis, however, are at extremely high risk for progressive CKD, and up to 10% may develop end stage renal disease. Patients with AKI are more likely to die prematurely after they leave the hospital even if their kidney function has recovered. Post discharge care under the supervision of a nephrologist for aggressive secondary prevention of kidney disease is prudent."^[68]

Above discussion explains acute kidney injury, and spontaneous recovery. Following information tells clearly the myth of reduction of serum creatinine by alternative medicines in chronic renal failure.

Evaluation of serum creatinine is important to distinguish between CKD from AKD. "Normal serum creatinine values from recent months or even years suggest that the current extent of renal dysfunction could be more acute, and hence reversible, that might otherwise be

appreciated. In contrast, elevated serum creatinine concentration in the past suggests that the renal disease represents the progression of a chronic process. Even if there is evidence of chronicity, there is the possibility of a superimposed acute process supervening on the chronic condition. If the history suggests multiple systemic manifestations of recent onset (e.g. fever, polyarthritis, and rash), it should be assumed that renal insufficiency is part of the acute process."^[70]

Chronic renal failure applies to process of continuing irreversible reduction in nephron number and GFR reduced to less than 59 ml/minute/1.73 M². Important causes are diabetes, glomerulonephritis, hypertension, polycystic kidney disease. Accumulation of toxins results in the uremic syndrome. This syndrome leads to death unless the toxins are removed by renal replacement therapy, using dialysis or kidney transplantation.

"Any acceleration in the rate of decline of kidney function in patients of chronic kidney disease should prompt a search for superimposed acute or subacute processes that may be reversible. These include Extracellular fluid volume depletion, uncontrolled hypertension, urinary tract infection, exposure to nephrotoxic agents, reactivation of original disease."^[70]

By above discussion, it is clear that

- (1) In acute renal failure, initially serum creatinine is increased then due to natural capacity of recovery of renal function spontaneously there is reduction of serum creatinine in most of the cases without taking any treatment.
- (2) In chronic kidney disease, sudden increase in serum creatinine is due to superimposed acute renal failure, that is reversible and ultimately serum creatinine is reduced.
- (3) If diagnosis of chronic renal failure is confirmed and there is no superimposed acute kidney injury and dialysis and kidney transplantation are not done then only we can give credit to any treatment if that improves kidney function in these conditions.

So do not be misguided by reduction of serum creatinine by alternative medicines. Renal functions may be improved, even then death is due to complications so always follow advice of experts of modern medical science.

CONCLUSION

There should be proper animal studies and clinical trials of drug before marketing for all systems of therapeutic. "Objectives of animal studies are to evaluate activity, toxicity,

selectivity and specificity, mechanism of action and drug metabolism. The objectives of clinical trials are to establish safety, Efficacy, therapeutic confirmation, drug metabolism, safety, quality of life and adverse effects."^[71] Alternative system of medicine is accepted in the society due to historical, philosophical and traditional reasons. Its acceptance is not based on scientific studies.

"Modern clinical pharmacology aims to replace empiricism in the use of drugs with therapy based on in-depth understanding of factors that determine an individual's response to drug treatment. Molecular pharmacology, pharmacokinetics, genetics, clinical trials and the educated prescriber, all contribute to this process"^[72]

"Evidence based medicine is the integration of the best available research evidence with clinical judgment and experience as applied to the care of individual patient."^[73] These research methods should also be used in alternative medicine. Other methods of alternative systems; like Pranayam, Worship. Astrology, Tantra-Mantra, Meditation and others should be analyzed, evaluated, scientifically discussed and assessed by clinical controlled study before application in the society.

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