



Yoga & Ayurveda : A Complementary System Of Preventive Therapeutics For Some Important Lifestyle Disorders :- A Review

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Abstract:-

Modern medicine increasingly looks to traditional systems of medicine to combat the chronic disease crisis caused by non-communicable diseases. Yoga & Ayurveda present two ways to eliminate pathology and restore health. In ancient India, health was promoted by the most powerful means available. Traditional Indian system of medicines like Ayurveda and Yoga often restore health when all else has failed. They are increasingly accepted as possible routes to regaining health even in the face of otherwise incurable chronic diseases. Their seeds in the *Upanisads* are the *pancavayus* (five subtle energies) *pranas* (vital breaths) controlling the physiology. Acting on 'subtle levels' that control gross physical levels gives Yoga and Ayurveda their power to cure chronic diseases and restore health. As integrative practiced today, yoga-medicine combine traditional wisdom with modern medicine. Mentally yoga aims to balance the mind ('balance of mind' is called yoga) by balancing the three *gunas*. Physiologically, it acts on the *pancakosas* (five sheaths) surrounding the abstract level of spirit or Self, so preventing interference with processes maintaining balance and health. Its lifestyle strategies prevent imbalances from arising, thus promoting health. Ayurveda similarly aims to restore balance to regulatory systems in the physiology, describing them in terms of three *dosas* and their 15 sub-*dosas*. Both yoga and Ayurveda are similarly structured and complement each other. Adopting their

Lifestyle recommendations, offers effective means to avoid disease and maintain health. Yoga is Considered as one of the important measure of prevention of Diseases and promotion of health. Practiced in India since time immemorial and presently emphasized greatly by the Government of India. In spite, procedural part of Yoga, viz. *Asanas* is more popular among common people . but actual application of Yoga meant in wider way. Yoga in therapeutic purpose, includes both the physical and psychological aspects. Similar approach is also described in Ayurveda. The preventive aspects of therapeutics are the primary aim of Ayurveda and it is predicted that the Idea of Ayurveda perlocated in Yoga too. Importance of preventive therapeutics is now a great concern in bio-medicle sciences. An attempt has been made in this review article regarding effective therapeutic applications of both the Yoga &

Ayurveda in prevention of certain disorders viz. chronic and acute respiratory disorders, cardio-vascular disorders, hepato-biliary diseases and Diabetes mellitus.

Keywords :- Yoga, Ayurveda, Chronic and Acute Respiratory Disorders, Cardio-vascular diseases, Hepatobiliary diseases, diabetes mellitus.

Introduction :-

अनन्याश्चिन्तयन्तो मां ये जनाः पर्युपासते ।

तेषां नित्याभियुक्तानां योगक्षेमं वहाम्यहम् ॥ 22॥

*ananyāśh chintayanto mām ye janāḥ paryupāsate
teṣhām nityābhiyuktānām yoga-kṣhemam vahāmyaham*

(Shrimad Bhagwadgeeta, Chapter-9.22)

As Shrimad Bhagwadgeeta says, yoga is a devine way to worship the God and achieve the success and all other heavenly things in the world. And it is the simplest way to live a precious life. Yoga is defined as a practical aid not a religion. Yoga is an ancient art based on a harmonizing system of development for the body, mind, and spirit. The continued practice of Yoga leads to a sense of peace and well-being, and also a feeling of being at one with their environment. The practice of Yoga makes the body strong and flexible, improves the functioning of the respiratory, circulatory, digestive and Hormonal systems. Yoga brings about emotional stability and clarity of mind. Practice of Yoga is as old as Ayurveda in our country and there is a close relationship between these two systems. It is also predicted that Yoga is originated from Ayurveda. Aim of both Ayurveda and aim of both Ayurveda and Yoga are maintenance of health. Health can be maintained by maintenance of homeostatis state of Sharira (physical body), Atma (soul), the Indriyas (organs) and the mana (mind) in a tranquilizing level (prasanatamendriya Mana). This definition of health closely mimics with modern definition of health. There are many facets of activities for maintenance of this balance. Yoga and Rasayana could perform it with proficiency. Although Rasayana therapy/ Chikitsa are the least understood branch of Ayurveda science but is fascinating the people around the world today. Concomitant Yoga and Rasayana therapy may be considered as beneficial for prevention of disease and promotion of health. Besides, this combination of Therapy may also be beneficial for certain diseases, especially respiratory disorders.

Fundamental principles of Yoga:

Yoga is a complex tradition, which has history of 5,000 or more years. Beginners are easily overwhelmed by the vastness and richness of *Yoga's* practice, philosophy, and literature. *Yoga* is what is traditionally called a liberation teaching (*moksha-shâstra*). It seeks to liberate us from our limited notion of who we are.

Because human beings have different strengths and weaknesses, the masters of *Yoga* have designed various approaches, so that *Yoga* can be helpful to everyone. Thus there are different

branches, which correspond to specific emotional and mental capacities or preferences. Generally seven such branches are distinguished:

- (i) *Râja-Yoga* is the “Royal *Yoga*” aiming at liberation through meditation, which is for practitioners who are capable of intense concentration—the eight fold path of Patanjali’s *ashta-anga-yoga*, also called “*Classical Yoga*”.
- (ii) *Hatha-Yoga* is the “Forceful *Yoga*” aiming at liberation through physical transformation.
- (iii) *Jnâna-Yoga* is the “Wisdom of *Yoga*” aiming at liberation through the steady application of higher wisdom that clearly discerns between the real and the unreal.
- (iv) *Karma-Yoga* is the “Action *Yoga*” aiming at liberation through self-transcending service.
- (v) *Bhakti-Yoga* is the “Devotional *Yoga*” aiming at liberation through self-surrender in the face of the divine.
- (vi) *Tantra-Yoga* is the “Continuity *Yoga*” aiming at liberation through ritual, visualization, subtle energy work, and the perception of the identity (or continuity) of the ordinary world and the transcendental reality.
- (vii) *Mantra-Yoga* is the “*Yoga* of Potent Sound” aiming at liberation through the recitation (aloud or mental) of empowered sounds (such as *om*, *hûm*, *ram*, *hare krishna*, etc.)—often considered an aspect of *Tantra-Yoga*. These seven branches are alternative portals into the mysteries of *Yoga* and thus our own consciousness.

Fundamental principles of *Ayurveda* :

Hitahitam Sukham Duhkhamayustasya Hitahitam |
Mananca Tacca Yatroktamayurvedah Sa Ucyate ||

(Charak Samhita;Sutrasthana: 1/15)

The subject which deals to describes that *hitayu* (physical wholesome aspect of life span), *ahitayu* (physical unwholesomeness), *sukhayu* (happiness in mind), *dukhayu* (sorrowful mind) and its the management, is known as *Ayurveda*. *Ayurveda* is a holistic healing science which comprises of two words, *Ayu* and *Veda*. *Ayu* means life and *Veda* means knowledge or science. The two most important aims of *Ayurveda* are to maintain the health of healthy people and to cure the diseases of sick people. Person is seen in *Ayurveda* as a unique individual made up of five primary elements. These elements are *Akasha* or ether (space), *Maruta* or air, *Teja* or fire, *Apa* or water and *Kshiti* or earth. Just as in nature, we too have these five elements in us. When any of these elements are imbalanced in the environment, they will in turn have an influence on us.

Important aspects of *Ayurveda* includes following facts:

Dhatus- These are the basic tissues which maintain and nourish the body. They are seven in number namely- *rasa* (chyle), *raktha* (blood), *mamsa* (muscles), *meda* (fatty tissue), *asthi* (bone), *majja* (marrow) and *sukla* (reproductive tissue).

Mala- These are the waste materials produced as a result of various metabolic activities in the body. They are mainly urine, feaces, sweat, etc.

Srotas-These are different types of channels which are responsible for transportation of food, *dhatus*, *malas* and *doshas*. Blockage of *srotas* causes many diseases.

Agni- These are different types of enzymes responsible for digestion and transforming one material to another.

Dosha- Balance and harmony of the three *Doshas* when the three *Doshas* are well harmonized and function in a balanced manner, it results in good nourishment and well-being of the individual.

Lifestyle diseases: Role of *Yoga* and *Ayurveda*

Respiratory diseases

More than 3 million people died of chronic obstructive pulmonary disease (COPD) in 2005. In 1990, the World Health Organization/World Bank Global Burden of disease study estimated the global prevalence of COPD to be 9.33 per 1000 individuals for men and 7.33 per 1000 for women⁵. The prevalence was observed to be higher in industrialized countries. In India, there have been only a few population-based studies on the prevalence of COPD, some hospital-based studies and some in specific population groups such as workers or patients attendants (Fig. 1).

Role of *Yoga* in prevention of respiratory diseases: Every human society, be it rural or urban, industrial or technologically advanced, is affected extremely by pollution of the air. Atmospheric pollution due to the increase in the concentration of gases other than oxygen in the air is responsible for various respiratory illnesses. Breathing sustains life, but natural breathing brings health and happiness. It clears the mind and calms all the emotions and releases the vitalizing flow of energy within us. Many people with serious respiratory ailments have found a solution in *Yoga*. As the mind is calmed the hyper reactivity that causes diseases such as bronchial asthma and nasal allergy is reduced. *Pranayama*, an important aspect of *Yoga*, helps in strengthening the immune system, so chronic infections are less likely. Regular practice of *Pranayama* helps in improving the mechanical efficiency of our breathing and makes the most of our lung capacity.

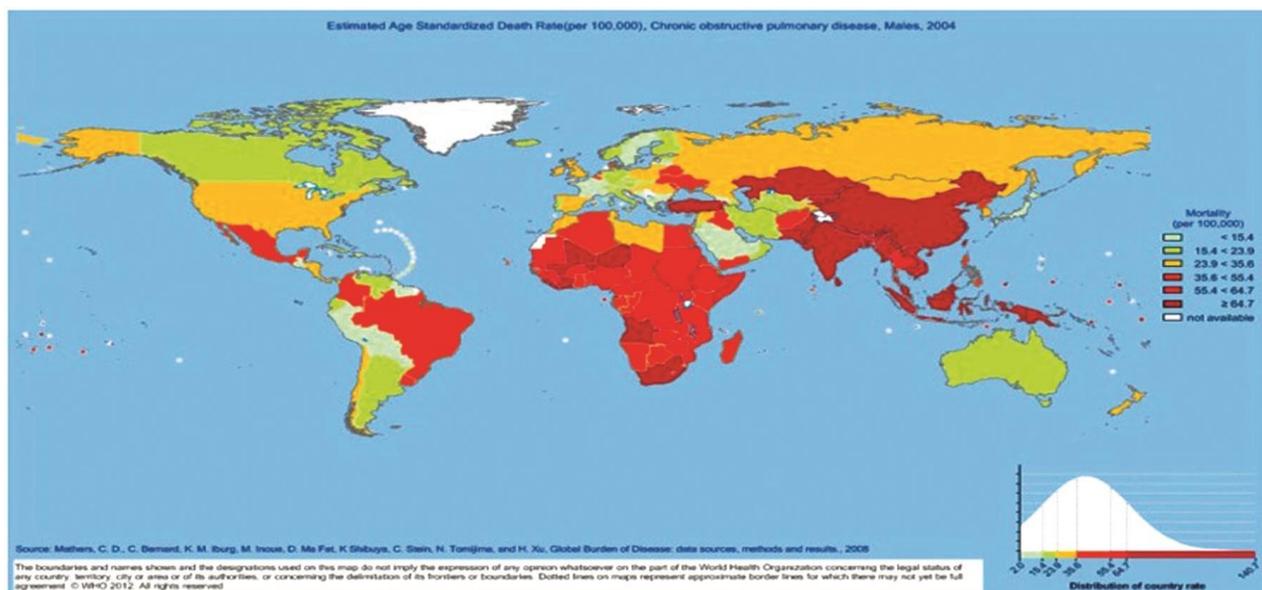


Fig. 1 — COPD Mortality Projections: Global Burden of Disease Data. Updated 20th January 2011.

Role of Ayurveda in prevention of respiratory diseases

Anti-allergic – Ayurvedic treatment for respiratory diseases *Haldi* (*Curcuma longa* L.), *Neem* (*Azadirachta indica* A.Juss) and *Guggul* [*Commiphora mukul* (Stocks) Hook] are some precious herbs provided to the patients in form of capsules and herbal formulations which not just fights with any kind of allergies but also cure the part which gets affected by that allergy.

Expectorant and mucolytics – Breathing problems most often occurs due to the blockage created by excess mucus and cough. So, some herbs like *Shirish*, *Anant mool*, *Bharangi*, *Dalchini*, *Tulsi*, *Piplee*, *Kanth Kari* along with natural honey are very useful in this case⁶. These herbs dissolve the mucus and phlegm stored inside the airways & throat, and throws it away from the body so that they can't cause any further problem.

Blood purifier – The mucus and phlegm which get stored inside the respiratory organs and the impurities which enters the body through inhalation of polluted air or through smoking creates toxins inside the body which causes serious problems not just in form of breathing diseases but also to the other parts of the body as these toxic substances get mixed with the blood, make it impure and this impure blood leads to disastrous health problems. So, Ayurvedic treatment for respiratory diseases is done through special herbs like *Neem* and *Manjistha* are provided to the patients to remove toxins from the body and kill the root cause of the problem.

Immunity booster and rejuvenating herbs – Cold & cough makes us feel very tired, inactive and generates pain in the body. It also weakens the immune system by producing toxins. So, it is very essential to have something to strengthen the body immune system again. Ayurvedic treatment for respiratory diseases considers this thing very seriously and uses various immune modulator herbs like *Amla*, *Ashwagandha*, *Shilajit* and *Ginseng* which does the internal healing of the body and refreshes it for active action.

Deep *Ayurveda* has following patented medicines which are very useful herbal formulations to cure the respiratory problems. Like, Respocare Herbal Powder, Respocare Herbal Syrup, Respocare Herbal Capsules, etc. Following classical medicines are also very effective in solving breathing related issues, like, *Talishadi Churn*, *Sitopaladi Churn*, *Kaphketu Rasa*, *Kashkuthar Rasa*, *Laxmi vilas Rasa*, etc. *Panchakarma* treatments like *Abhyangam* (body massage) *Swedan* (steam bath) *Nasyam Dhoompan* are important therapeutic measurements.

Cardiological diseases with special reference to myocardial infarction

Myocardial infarction is now considered part of a spectrum referred to as acute coronary syndrome (ACS). This refers to a spectrum of acute myocardial ischaemia that also includes unstable angina and non- ST-segment elevation myocardial infarction (NSTEMI) (Figs. 2&3)

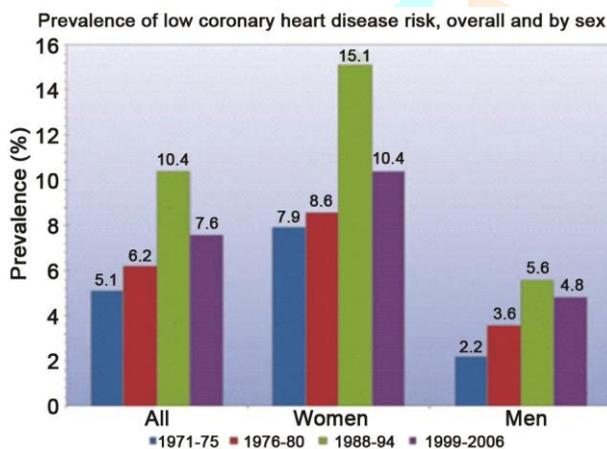


Fig. 2 — Prevalence of low coronary heart disease risk, overall and by sex (National Health and Nutrition Examination survey 1971-2006).

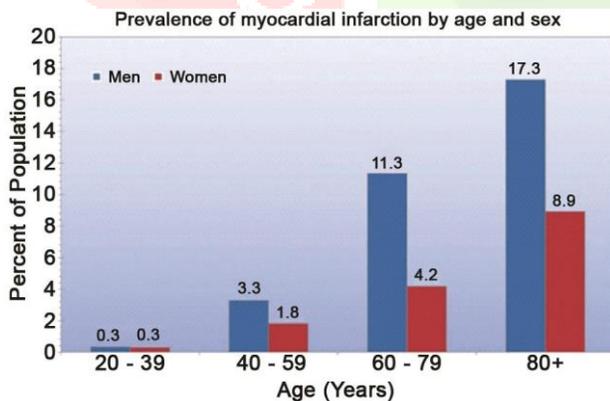


Fig. 3 — Prevalence of myocardial infarction by age and sex (National Health and Nutrition Examination survey)

Role of Yoga in prevention of myocardial infarction (MI)

The main goal of *Yoga* is to create external harmony between the individual and his social, physical, biological environment and internal harmony between mind, body and soul. It can play a very important role in prevention and cure of heart ailments. There is a widespread belief that it involves too much turning and twisting of body in grotesque postures and

holding which is considered to be too risky for heart patients. Naturally, the *asanas* and *pranayams* for a heart patient, if at all recommended, will have to be different. But this is only one aspect of *yoga* viz. *Hatha Yoga*. There are other *yogic* practices eminently suited for heart patients. One such technique, viz. *Yoga Nidra*, can be practiced even during a heart attack. *Yog Nidra* developed by Swami Satyanandji, Founder of Bihar School of *Yoga* requires partially no physical effort by the practitioner. All that the patient has to do is to lie down in *Shavasana* and follow some instructions mentally. The benefits such as mental relaxation can be felt immediately. As it lowers anxiety level, it may be able to avert a potentially severe heart attack. It can also be very useful in dealing with cardiac neurosis. Millions of patients have no clinical symptoms or any biological basis for heart disease. Yet they are virtually paralyzed by the fear of an imminent heart attack. Their feeling of sheer helplessness and acute anxiety may by itself precipitate a heart attack. Cardiac neurosis is a major problem in rehabilitation after a bypass surgery also. *Yoga Nidra* brings about a state of deep mental and physical relaxation. This brings out some deep rooted fears and anxieties to surface and destroys them. Most of our communication is at the conscious level of mind while most of our behavior and attitudes depend upon the contents of our subconscious mind. This is why excessive smokers and drinkers are unable to give up smoking or drinking even when they are fully aware of their damaging effects. In *Yoga Nidra* when the mind and body are fully relaxed, it is possible to communicate with the subconscious mind and help a person to remove negative traits of his personality. There are many other *Yogic* practices such as *antarmaun*, *ajapajap*, different types of meditation which can bring relief to heart patients and carry no risk.

Role of Ayurveda in prevention of MI

Charaka identified 10 numbers of drugs having good cardiac activity under *dasaemani varga*, *amra*, *amratwka*, *lakucha*, *karamarda*, *vrikshamla*, *amlavetasa*, *kubala*, *badara*, *dadimba*, *matulanga*. The principles underlying *Ayurvedic* formulations can be broken into four parts: synergy, opposition, protection and enhancement. The various formulations used in heart diseases are, as *Chandraprabha*, is used to maintain healthy cholesterol levels and blood sugar levels. *Abana*, an *ayurvedic* mixture manufactured by Himalaya herbal healthcare, containing *arjuna*, *ashwaganda*, and *shatavari* promotes healthy cholesterol levels, helps regulate blood pressure and supplies needed oxygen to the heart. *Abana* regulates serum lipids by lowering the cholesterol, triglyceride, low-density lipoprotein (LDL) and very low-density lipoprotein (VLDL) levels, and restores the cardioprotective high-density lipoprotein (HDL) level. *Abana* also reduces platelet aggregation. *Abana* reduces the sensitivity of the heart to adrenergic stimulation and improves the contractility of the heart by exerting a positive inotropic action. Digest ease is a digestion formula for *pitta*. It supports proper digestion and absorption for individuals prone to hyperacidity and heart burn. *Arjuna*, *bala* and hawthorn berry are effective in nourishing and strengthening heart muscle, stimulating circulation and oxygen flow. It promotes healthy cholesterol levels aiding in the defense of heart disease.

Arjuna (Koha) paste is helpful in heart diseases, acne, and diarrhoea. *Guggul* is effective in arthritis, bronchitis, atherosclerosis, diet & weight loss, PMS, stress, and ulcers¹⁶. *Avipattikar churna* containing *Vindanga, Sharkara, Lavanga, Pipli, Trifala, Mustaka, Ela, Tejpatha,* and *Kala mirch* is effective in acidity, heartburn, gastritis, anorexia, loss of appetite, constipation, and hyperactivity^{17,18}. *Bala (Sida cordifolia L.)* is commonly used for heart diseases, soothing for arthritic pain, rejuvenative, nutritive, and stimulant for the heart, helps in the inflammation of nerve tissue. *Bala* pacifies high *vata-pitta* conditions¹⁹. *Haritaki (Terminalia chebula Retz.; C.B. Clarke)* is used in cough, asthma, abdominal distention, tumors, heart disease, skin disease, and itching. *Tribulus terrestris L.* is also used in cardiovascular diseases²⁰. *Hriday Amrit* is a remedy for coronary heart diseases and other cardiac disorders. *Hriday Amrit* is composed of *Terminalia arjuna (Roxb.) Wight & Arn., Boerhaavia diffusa L., Plumbago zeylanica L., Terminalia chebula Retz., Withania somnifera Dunal, Vitex negundo L., Vanda roxburghii R. Br., Solanum nigrum L., Tinospora cordifolia Miers ex Hook f. & Thoms., Piper longum L., Cyperus scariosus R. Br., and Embelia ribes Burm. F.*

Hepato-biliary diseases

Hepatobiliary diseases are diseases that affect the biliary tract or the liver. The umbrella of diseases includes:

Autoimmune liver diseases – occur when the liver tissues are attacked by the body's immune system. This type of condition may be characterized as autoimmune hepatitis, biliary cirrhosis or sclerosing cholangitis. **Biliary strictures** (both malignant and benign) – occur when the bile ducts become inflamed or injured. The ducts narrow and form a stricture. They are often caused by injury or cancer.

Role of Yoga in prevention of hepatic disorders:

Recent evidences show that *yoga* reduces heart rate, blood pressure and basal metabolic rate by reducing sympathetic activity. It has beneficial effect in many non-communicable diseases such as hypertension, diabetes and cancer. *Yoga* brings balance in autonomic nervous system by reducing the sympathetic tone and increasing parasympathetic tone. *Yoga* has also been proven to produce various psychological benefits by reducing stress, anxiety and depression and improving the quality of life. Hence, *yoga* is a comprehensive approach to the complex problem of non-communicable diseases like CKD (Chronic kidney disease).

In a study on patients with CKD (ESRD) who were on dialysis, it was found that 30 min of *hath yoga* practice daily for 4 moths showed significant reduction in oxidative stress (malondialdehyde, protein oxidation, phospholipase A2 activity) and increase in anti-oxidant activity (superoxide dismutase and catalase activities). This study demonstrated therapeutic, preventative as well as protective effects of *Yoga* in ESRD through reduction of oxidative stress. Another study in end stage renal disease patients reported that *yoga* reduces cholesterol levels. In another randomized controlled study on hemodialysis patients, 12 week *yoga* intervention *yoga* has proven to be safe and significantly effective in managing the

pain, fatigue, sleep disturbance along with significant improvement in hand grip, significant reduction in creatinine, blood urea, alkaline phosphatase and cholesterol along with significant improvement in erythrocyte and hematocrit count. *Yoga* therapy has been shown to increase haemoglobin levels in anemic patients, it may also help in improving the Hb % in CKD patients. In another recent study, 10 days Mindfulness-based stress reduction program reported beneficial effect in improving quality and duration of sleep. It was concluded that it has the potential of being an effective, accessible and low-cost intervention that could significantly change transplant recipients' overall health and well-being. Mindfulness meditation also reduced arterial blood pressure by reducing the sympathetic over activity in the chronic kidney disease. Meditation also improved the quality of life and sympathetic over activity in lupus nephritis patients with chronic kidney disease.

Role of Ayurveda in prevention of hepatic disorders

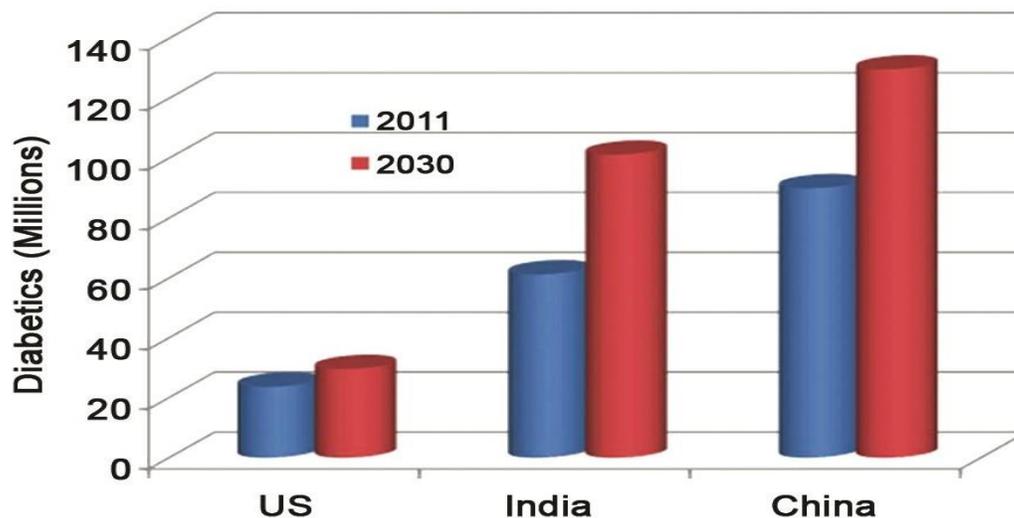
A herb containing four flavonolignan isomeric components (silybin, isosilybin, silychristin, and silydianin), obtained from the plant, 'milk thistle' [*Silybum marianum* (L.)

Gaertn.]. The active ingredients of the plant are obtained from the dried seeds; Silymarin is one of the herbal medicines that have been extensively studied, both clinically and chemically, for the treatment of major liver diseases. It has been claimed that silymarin has clinical applications in the treatment of toxic hepatitis, fatty liver, cirrhosis, ischaemic injury, radiation toxicity and viral hepatitis as a result of its antioxidative, anti-lipid-peroxidative, antifibrotic, anti-inflammatory, immunomodulating, and even liver regenerating effects. Milk thistle is not considered safe to be used by pregnant or breast feeding women. Liv-52 is an *ayurvedic* supplement, recognized and registered in more than 45 countries, and a well known herb prescribed by many physicians worldwide. Introduced in 1955, Liv-52 has been studied vigorously since then for the treatment of liver diseases such as hepatitis, alcohol liver disease, pre-cirrhotic and early cirrhosis conditions, elevated liver enzymes, fatty liver conditions, protein energy malnutrition, and radiation or chemotherapy-induced liver damage³¹. Green tea [*Camellia sinensis* (L.) Kuntze] is used in acute liver injury and oxidative stress injury, green tea is proved to be useful in preventing Hepatic C Virus (HCV) entry into the liver cells. Green tea is composed of active compounds such as catechin, gallic acid, gallo catechin, epicatechin, epigallocatechin, epicatechingallate, and epigallocatechingallate (EGCG) in which EGCG is considered the most therapeutically significant compound. Glycyrrhizin extracted from *yastimadhu* (*Glycyrrhiza glabra* L.), inhibits liver cell injury and in Japan is given intravenously for the treatment of chronic viral hepatitis and cirrhosis. In general, doses of 380–1,140 mg three times daily, taken by mouth 20 min before meals or 2–4 ml per day.

Diabetes mellitus (DM)

Diabetes mellitus is a chronic disease caused by inherited and/or acquired deficiency in production of insulin by the pancreas, or by the ineffectiveness of the insulin produced. Such a deficiency results in increased concentrations of glucose in the blood, which in turn damage many of the body's systems, in particular the blood vessels and nerves.

Insulin is unavailable and unaffordable in many poor countries, despite being listed by WHO as an essential drug. Access to insulin by those who require it is a subject of special concern to international health agencies and national health authorities (Fig. 4).



Role of Yoga in prevention of Diabetes mellitus:

Fig. 4 — Bar diagram represents the rate of rapid increase of diabetic patients in US, India and China

The claim of *yogic* exponents that *yoga* cures diabetes, is perhaps an expression of the good control of diabetes achieved among obese type 2 diabetes subjects, who also respond to diet and exercise. Studies have been carried out in our country to evaluate the effect of *yoga* on diabetes. Most of these studies were done on small number of patients, over small periods of time and just relied on blood sugar estimations to assess the results. These studies had also combined *pranayama* and several other *yogic* practices making it difficult to interpret their individual contributions.

A study has been carried out to assess the effect of *yoga* in the treatment of diabetes as well as other diseases during the period 1978-1995 at the *Vemana Yoga Research Institute*, Secunderabad. This is a review of the work done. Postulations based on the results of previous studies which had postulated that *yogic* practices help in controlling diabetes by the following mechanisms: exercise effect, changes in biochemical and hormonal profile, elimination of stress and instilling a sense of discipline (Fig. 5). To assess these postulations normal individuals and diabetics were investigated with a carefully chalked out protocol for the effect of *yogic* practices on exercise tolerance, obesity, hypertension, insulin kinetics and lipid metabolism. Patients with complications like retinopathy, nephropathy were not included in the study, patients selected were explained the outline and aim of the studies and their consent taken. They were given advice regarding diet, those on treatment were advised to continue on the same drugs. Patients were recalled after 10 days for baseline investigations so as to exclude the effect of dietary therapy. The investigations included anthropometric data, GTT (75 gm oral glucose tolerance test), serum insulin estimation, plasma cortisol, blood urea, serum creatinine, serum lipid profile, serum lactates and pyruvates. ECG and exercise tolerance test (in willing patients) were carried out. In order to assess the effect of individual *asanas*, patients were randomly allotted to different groups and they performed *yogic* practices of that group for 45 min each day followed by relaxation practices, i.e.,

Shavasana and *Makrasana*. Effect of *Yogic* practices on body composition in normal healthy volunteers the skin fold thickness was significantly reduced with increase in the lean body mass, without any significant change in the weight of the individuals.



Fig. 5 — Important yogic postures to treat various Disorders

One hundred eight patients with Type 2 diabetes were studied for a period of 6 months. All these patients developed a sense of well being and showed a significant fall in the fasting and post-prandial blood sugar values with smooth control of blood sugar and significant fall in the glycosylated hemoglobin and the drug requirements. In these patients there was a significant decrease in the body fat and increase in the lean body mass. The mechanism involved could be either correction of insulin resistance alone or additional improvement in beta cell function. Further, studies are required to unravel this.

Role of Ayurveda in prevention of Diabetes mellitus :

The preventive measures in *Ayurveda* can prevent the disease. The main causative factor is said to be sedentary lifestyle and food habits. In *Ayurveda* it is described in *vataja pramehas*, which can be manage conservatively with exercise, diet and internal medication. We have traditional wealth of number of herbs and other herbo-mineral medicines which can control diabetes if used properly. Along with medication it requires a proper dietary regimen and exercise to control the disease.

The use of herbal medicines is steadily growing. Approximately 60 % of the population use herbal medicines to treat medical illnesses. Given below is the list most common and effective antidiabetic medicinal plants of Indian origin are *Giloy* [*Tinospora cordifolia* (Thunb.) Miers], *gurmar* (*Gymnema sylvestre* R. Br.), garlic (*Allium sativum* L.), *methi* (*Trigonella foenum-graecum* L.), *ghrita kumara* [*Aloe vera* (L.) Burm. f.], neem (*Azadirachta indica* A. Juss), ash gourd [*Benincasa hispida* (Thunb.) Cogn.], *tulsi* (*Ocimum sanctum* L.), *anar* (*Punica granatum* L.), purging Nut (*Jatropha curcas* L.), fever nut

[*Caesalpinia bonducella* (L.) Roxb.], *bijaysar* (*Pterocarpus marsupium* Roxb.), *jamun* [*Syzygium cumini* (L.) Skeels], *karela* (*Momordica charantia* L.), *bael* [*Aegle marmelose* (L.) Correa], *church steeples* (*Agrimonia eupatoria* L.), *mulberry* (*Morus alba* L.), *Babul* (*Acacia Arabica* (Lam.)), *onion* (*Allium cepa* L.), *bitter apple* [*Citrullus colocynthis* (L.) Schard.], *eucalyptus* (*Eucalyptus globules* Labill.), *banyan tree* (*Ficus benghalensis* L.), *kiwach* [*Mucuna pruriens* (L.) DC.], *gurhal* (*Hibiscus rosa-sinesis* L.), *ivy gourd* (*Coccinia indica* Wight. & Arn.). 1. Single formulation like, *Guduchi swarasa* [*Tinospora cardifolia* (Thunb.) Miers] – 10 ml twice a day with honey *Amalaki Curna* (*Phyllanthus emblica* L. – 6 gm twice a day with honey, *Karavellaka Phala Curna* (*Momordia charantia* L.) – 3 gm twice a day with water. Medicated Ghee- *Dhanvantara ghrita* 5 to 10 gm/day *Dadimadya ghrita* 5 to 10 gm/day *Sinhamrita ghrita* 5 to 10 gm/day. *Saraleha* - Prepare decoction of *asana* (*Pterocarpus marsupium* Roxb.), *khadira*, *babbula* and *bakula* (*Mimusops elengi* L.), during boiling of *tamra* and *loha* bhasma should be added and powders of *amalaki*, *danti*, *lodhra* and *priyangu* were added. This is useful for all types of *Prameha*; dose: 3 to 5 mg/day. *Gokshuradyavaleha* - Prepare decoction of *gokshura* and add *trikatu*, *nagakeshara*, *cinnamon*, *ela*, *jatipatra* and *vamshalochana*. This is also useful in all types of *Pramehas*; dose: 3 to 5 mg/day.

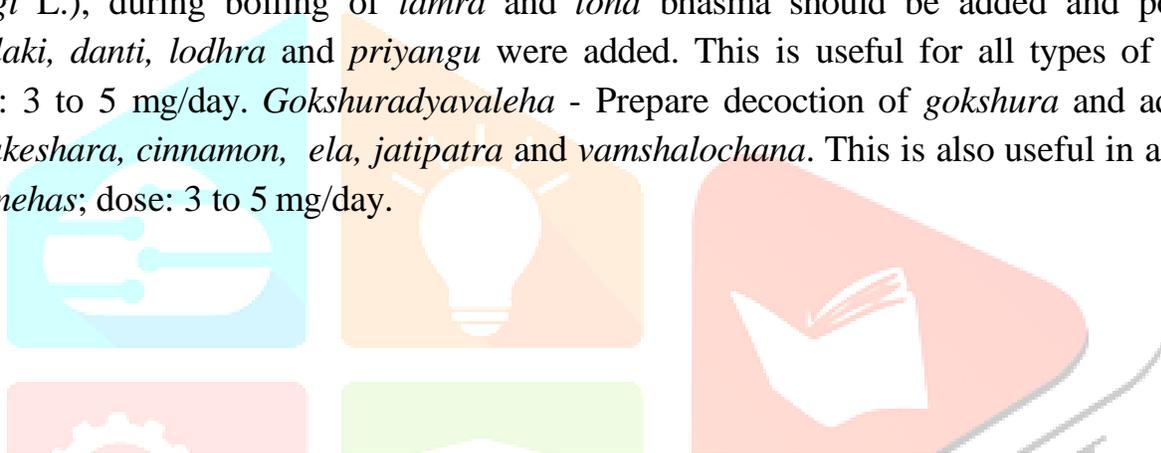


Fig. 6 – Important Ayurvedic drugs used to treat Diabetis mellitus

Discussion

Research related to *yoga* as complementary and/or alternative intervention to medicine gained increased attention in the 21st century simultaneously with increasing interest for other Complementary and Alternative Medicine and their incorporation into the concept of integrative medicine. A total of 195 papers regarding *yoga*, published from 2001 to 2014 in from 24 journals indexed in Integrative and Complementary medicine. In a critical review it was found a great variety of medical conditions treated, different methodologies were applied; also, results on effectiveness of *yoga* therapy were widely ranged from non-effective to significantly effective in treating the particular medical condition.

Ayurveda is a complete medical science with interdisciplinary tools and methodical life management therapeutics towards the life style disorders. Modern Researches explores the identical medications are not only helpful to overcome the disorders but also assures a permanent solutions. In question of safety and efficacy those medicines are also better. In some diseases only the single drug acts as the key healer otherwise the compound formulations show their combined actions.

Conclusion

Fundamentally *Yoga* and *Ayurveda* has a great similarity. The line of treatment, the measurements may be different but the therapeutic approach diagnostic tools are same. The life style disorders began to grasp our society day by day due to our undisciplined life style, heavy workload and lack of exercise. The modern medicine having major side effects supports the clause that the combined therapy of *Ayurveda* and *Yoga* must have an alternative way.

But we should think on this matter that it should be the main stream treatment for life style disorder for the safety and secure effects of *yoga* and *Ayurvedic* treatment therapeutics. Interest from public and government both side should be approachable to the society for the implementation of that therapy. Though Ministry of AYUSH, Government of India has taken some valuable steps to popularize those therapeutic modules recently. The combined therapy shapes our society both from both physical and mental state of health.

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