

Ayurveda - An Indigenous Medicine in Holistic Liver Care

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ABSTRACT

The most ancient indigenous medical system is Ayurveda which originate from Veda. It is holistic care which define health is the balance of body, mind and spirit. Ayurveda includes rejuvenation, regeneration, reversible of age and diseases and self-realization through Panchakkarma (detoxification), herbs, minerals, diets, exercises, yoga, pranayama (breath control or breathing exercise) and meditation. The Holistic approaches for liver are the total care of the patient in terms of physical, emotional, social, economic and spiritual with respect to liver illness and it creates ability to self-care of the organ. Diet, exercise and medicinal prevention or treatment of liver disease by plant-based medicine is an essential constituent of Indigenous medicine including Ayurveda. A well-balanced diet is important for liver health. A healthy lifestyle includes additionally rejoicing with Pranayama, meditation, regular exercises, yogic postures, keeping smoke-free and alcohol-free, having good sleep, and drinking adequate water along with regular detoxification can keep the liver healthy and decrease the progression of liver disease.

KEYWORDS

Holistic liver care, Panchakarma, Meda, Yakrit

INTRODUCTION

Indigenous medicine is the knowledge about various materials and practices based on believes, theories and experience for the treatment of diseases in a specific region and popular of that area. It is otherwise known as Traditional Medicine. In some Asian and African countries, up to 80% population depend on Traditional medicine for their primary health care. The major dominated traditional medical systems are Traditional Chinese Medicine (TCM), Ayurveda, Yoga, Unani, Siddha, (AYUSH), African

traditional medicine, Korean traditional Medicine, Tibetan Traditional Medicine etc. The increasing acceptance of traditional therapies demands more scientific evidence for the principles behind therapies and for effectiveness of medicines. Recent advancements in the analytical and biological sciences, along with innovations in genomics and proteomics can play an important role in validation of these therapies. China became successful in integrating TCM in the national health care system. Science-based approaches were utilized and inculcated in the education of TCM with emphasis on research. Ayurveda is the oldest traditional

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system of medicine practiced in India and Indian subcontinents with own understanding of etiology of diseases and treatment quite different from modern medicine. The scientific disciplines of traditional medicine are Medical Anthropology, Ethnomedicine, Herbal Medicine etc. The Traditional Medical systems are also institutionalized, and qualified doctors are recognized for government and private practices in some countries. About 95% of general hospitals in China have traditional medicine departments. The scientific studies on therapeutic outcomes of traditional medicine are published in peer reviewed scientific journals and received wide acceptance among scientists and practitioners.

The chronic liver diseases are the major health burden Worldwide. The long-term treatment of viral hepatitis and less effective treatment of cirrhosis, fatty liver and liver cancer attract the use of Indigenous medicine and herbal supplement Worldwide. Many times, indigenous medical systems are criticized by many scholars of modern medicine due to lack of evidence for efficacy and standardization of herbal compounds.

HOLISTIC CARE FOR LIVER

Liver is the largest gland of the body and performs more than five hundred vital functions. These include production of albumin, bile production, remove toxins, regulate blood clotting and amino acids, store vitamins and minerals, process glucose to regulate blood glucose. The Holistic approaches for liver are the total care of the patient in terms of physical, emotional, social, economic and spiritual with respect to liver illness and it creates ability to self-care of the organ. It is not limited to use of indigenous medicines, but its arena extends to diet, detoxification procedures, lifestyle, practice of yoga and meditation for abstinent from habits of alcohol and nicotine. The common man always concentrates the physical symptoms of liver like-loss of appetite, abdominal pain or discomfort, dryness of mouth, itching, jaundice etc., whereas Hepatologists or

Gastroenterologists look after the changes in biological values and clinical parameters. The common patients thought that indigenous doctors have put us with many restrictions and advises and are not skilled enough to deal with liver problem which requires hospitalization for emergency care. The indigenous medicine and herbal supplements have no role in liver care or placebo effect, so it is better to live with joy without restriction. Numerous scientific studies alter the perception of common man and proved the positive effect of self-care programme in chronic liver diseases [1].

AYURVEDA - THE HOLISTIC CARE

Actually, most ancient indigenous medical system is Ayurveda which originate from Veda. It is holistic care which define health is the balance of body, mind and spirit. Ayurveda includes rejuvenation, regeneration, reversible of age and diseases and self-realization through Panchakkarma (Detoxification), herbs, minerals, diets, exercises, yoga, pranayama (Breath control or breathing exercise) and meditation.

Ayurveda philosophy considered Tridosa (Vata, Pitta, Kapha), Sapta Dhatu (Rasa, Rakta, Mamsa, Meda, Asthi, Majja) and Trimala (Mutra, Purisha, Sweda) as basic component of body and their balanced and imbalanced state of body are known as health (Swatha) and diseases (Vikara) respectively (Table 1). The three humours are functional unit and Sapta Dhatu are structural unit of body. The waste products originate from Ahara (Food) and Dhatu (Metabolic transformation) are Malas (Waste products) which requires proper excretion for homeostasis. Liver is referred as Yakrit in Ayurveda. It is root of with Rakta vaha srotas (Haemopoietic and biliary system). Kidney and heart are associated with Rakta vaha srotas (Haemopoietic and biliary system). Therefore, Liver diseases associated with Kidney and heart diseases. Pitta is the by by-product of Rakta so excess intake of alcohol, sour and salty foods increase pitta damage the architecture of Rakta vaha srotas

and create Chronic Liver diseases and complications. Cessation of Alcohol and nicotine has better outcome in Alcoholic Liver diseases (ALD), but twelve-month rate of relapse following alcohol or tobacco cessation attempts is

usually 80%-95%; therefore, preventing relapse or minimizing its extent is a pre-requisite for any attempt to facilitate successful, long-term changes in ALD.

Components of Body	Biological Correlation and Function
Dosa (Impurities)	Doshas are normal in quality and quantity, they maintain harmonious psychophysiology. The moment they go out of balance, they corrupt or vitiate the dhatus (bodily tissues) leading to diseases.
Vata (Biological Motive Force)	Vata regulates the principle of movement in the body, starting from chewing, swallowing, nerve impulses, breathing, muscle movements, thinking, peristalsis, bowel movements, urination, menstruation, etc.
Pitta (Energy)	Just as fire transforms anything, pitta is in play any time the body converts or processes something. Thus, pitta oversees digestion, metabolism, temperature maintenance, sensory perception, and comprehension. Imbalanced pitta can lead to sharpness and inflammation in these areas in particular. Pitta embodies the transformative nature of fire energy.
Kapha Cold Component	Kapha governs stability and structure, it forms the substance of the human body, from the skeleton to various organs to the fatty molecules (lipids) that support the body. An excess of Kapha leads to an overabundance of density, heaviness, and excess in the body.
Dhatu Constructing and Cementing Material of the Body	Dhatus are made of sthaya (permanent) and asthaya (temporary) constituents. The permanent constituents consist of basic tissues that support the body, provide structural unity, and are lasting. The temporary constituents nourish, sustain, and maintain the permanent constituents. The tridosha (kapha, pitta, vata) influence the constituents through their activities.
Rasa (Plasma)	Rasa nourishes the body, strengthens blood, and vitalizes the mind.
Rakta (Blood)	Blood nourishes flesh, gives bright and clear complexion and invigorates life processes.... Specific disorders are the result of increase or decrease in the quality and quantity of these constituents.
Mamsa (Muscle Tissue)	Flesh promotes body strength and nourishes fat tissue.
Meda (Adipose Tissues)	The body unctuousness comes from fat tissue, and it generates the steadiness of the limbs, nourishment of the bone tissue, and perspiration.
Asthi (Bone)	Support of the body and nourishment to bone marrow are given by the bone tissue.
Majja (Marrow and Nerve)	Bone marrow occupies bones, gives body strength, promotes sperms or ova, and enhances sexual interest.
Sukra (Reproductive tissues)	Take part in reproduction and give strength to body.
Mala	Waste products of body.
Purisa	Solid waste of body regulates digestive fire.
Mutra	Liquid waste of body regulates water balance.
Sweda	Liquid waste of body, maintain subcutaneous fat.

Table 1: The structural and functional components of body as per ayurveda.

S. No.	Santarpana Janya	Modern Correlation	Apatarpana Janya.	Modern Correlation
1	Vataja Yakrit Vriddhi	Steto Hepatitis	Vataja Yakrit Kshyaya	Initial Stage of Fibrosis
2	Kaphaja Yakrit Vriddhi	NAFLD	Kaphaja Yakrit Kshyaya	Cirrhosis Liver
3	Medaja Yakrit Vriddhi	NAFLD	Medaja Yakrit Kshyaya	Cirrhosis Liver
4	Pittaj Yakrit Vriddhi	NASH/ALD	Pittaj Yakrit Kshyaya	Hepatic Cirrhosis
5	Madhyaja Yakrit Vriddhi	ALD	Madhyaja Yakrit Kshyaya	Alcoholic Cirrhosis
6	Sannipatika Yakrit Vriddhi	HCC	Tridosaja Yakrit Kshyaya	HCC
7	Amaja Yakrit Vriddhi	Metabolic Hepatitis	Amaja Yakrit Kshyaya	Metabolic Cirrhosis
8	Asatmyaja Yakrit Vriddhi	Auto Immune Hepatitis	Asatmyaja Yakrit Kshyaya	Auto Immuno Cirrhosis
9	Krimija Yakrit Vriddhi	Infective Hepatitis	Krimija Yakrit Kshyaya	Infective Cirrhosis
10	Visaja Yakrit Vriddhi	Drug Induced Hepatitis	Visaja Yakrit kshyaya	Drug Induced Cirrhosis
11	-----		Yakrit Vidradhi	Hepatic Abscess
12	---		Yakrit Granthi	Hepatic Cyst
13	Yakrit Aburda	Hepatic Tumour		
13	-----		Kamala	Jaundice

Table 2: Ayurveda classification of liver diseases with modern correlation.

Samhanana (Body symmetricity) or physical propionate of individual part of the body is an indication of healthy Liver and body whereas excess deposition of meda dhatu (Adipose tissue) can create Medaja liver disease (Fatty liver). The whole Yakrit Vikara can be grouped under Santarpana Janya (Excess nutrition of organ or body) or

Apatarpana Janya Vikara (Under nutrition of organ/body) depending on liver mass Yakrit Vriddhi (Increase liver mass) Yakrit Kshyaya (Decrease liver mass) (Table 2) [2].

Digestion power (Agni) and Prakriti (Constitution) is important components of Ayurveda for diet plan to prevent and cure liver diseases. Patient whose digestive power is

less than they should go for liver function test and initially take deepana (Carminative) and pachan (Digestive). The common digestive and carminative herbs are illustrated (Table 1) can be used for keeping liver healthy. The Kapha prakriti people susceptible to fatty liver whereas Pitta prakriti people susceptible to Alcoholic Liver diseases. Stress is the subjective experience of negative emotional states coupled with physiological activation that often produces uncomfortable physical sensations, including muscle tension, elevated heart rate and blood pressure, and gastrointestinal distress and abnormal liver function test.

Panchakarma Or Therapeutic Detoxification

Human body produces harmful substances like- urea, carbon dioxide, ammonia, aldehydes through oxidation, reduction, conjugation and eliminates the toxins from cells or tissues through breathing process, urine, sweat and stool by the process of natural detoxification. There is ample evidence of deposition of persistence bio-accumulative toxicants (PBT) in biological fluids (Blood, urine, breast

milk, adipose tissues) due to release of environmental pollutants like-xenobiotic, synthetic chemicals, heavy metals, pesticides to soil, water, air, dust and food. The term Detoxification or detox is very popular in new generation. Patients have been self-motivated for detox therapy in recent years for recovery of addiction, weight loss, liver diseases out of excess intake of alcohol and thought panacea for numerous Non communicable disorders of psychosomatic origin. The other indications of detox therapy are G.I. disorders, auto immune disorders, chronic fatigue syndrome, endocrine disorders, liver and renal disorders. Detoxification or detox is a process of conversion of toxic parent's compounds to nontoxic metabolic or eliminate of toxin without produce any harm or injury to the patients. Panchakarma are Ayurveda procedures which expels the harmful substances through Snehana (Oleation), Swedana (Sweating), Vamana (Vomiting) Virechana (Purgation), Vasti (Enema). Sometimes Rakta mokshyana (Bloodletting) is also practiced in Panchakarma in enlargement of liver [3].

Common Medicinal Plants	Latin Name	Parts Use
Pudina (Garden Mmint)	<i>Menthe spicata</i>	Leaf
Dhaniya (Coriander)	<i>Coriandrum sativum</i>	Seed and Leaf
Jeera (Cumin Seeds)	<i>Cuminum cyminum L</i>	Seeds
Hingu (Asafetida)	<i>Ferula asafetida</i>	Gum or Resin
Haladi (Turmeric)	<i>Curcuma longa</i>	Root
Pana Madhuri (Fennel Seeds)	<i>Carum carvi</i>	Seeds
Rasuna (Garlic)	<i>Allium sativum</i>	Stem
Adraka (Zinger)	<i>Zingiber officinale</i>	Root
Maricha (Piper)	<i>Piper nigrum</i>	Seeds

Table 3: Common medicinal plants to keep liver healthy or for prevention.

Ahara (Diet Plan) for Liver Diseases

Diet is one of the three pillars of body other two are nidra (Adequate sleep) and maithuna (Safe sexual practices). The different types of food components divided into three groups as per Ayurveda. The Satvika ahara (Holy food) is pure vegetarian food items with less spices are good for healthy food for liver. The Rajasika (Food that stimulates the mind but also causes imbalances between the mind-

body equilibrium), and Tamasika (Food that causes laziness and is not good for body and mind) are not good for health liver. The processing methods (Samskara or Paka) of food and food combination are very important considerations for Healthy liver Ayurveda Pathya (Wholesome diet) and Apathya (Unwholesome diet) for liver are described in Table 3 and Table 4 [4].

Food Items	Pathya (Wholesome Diet)	Apathya (Unwholesome Diet)
Cereals	Rice, Wheat, Millat, Oats, Barley	New Rice, Rice Flour, Kodo Millet
Pulses	Green Gram, Red Gram, Lentil	Sesame, Chickpea, Kidney Beans, Black Lentin
Spices	Onion, Garlic, Clove, Black Pepper, Curry Leaf, Cardamum	Extra Salt, Mustard, Cinnamon
Fruits	Draksha, Casted Apple, Pomegranate, Apple, Kiwi, Cherry, Fig, Papaya	Orange, Lemon, Mango, Watermelon
Vegetables	Potala, Snake Guard, Beans, Moringa, Brinjal, Potato, Jeevanti, Punnanova, Radish, Onion, Tomato, Calabash, Ivy Gourd, Ash Gourd, Carrot, Shalgam, Beet Root, Tapioca	Chilly, Bitter Guard, Pickle, Pumpkin, All Leafy Green Vegetables (Saka), Sweet Potato, Potato, Cabbage
Milk product	Ghee (Emulsified Fat), Butter Milk, Milk (250 ml - 500 ml), Cheese	Curd, Sugar Mixed Milk Products, Paneer
Beverages	Gomuta - 30 ml, Water upto 1500 ml, Mutton Soup	Soda, Cold Drinks, Salted Water

Table 4: Pathya (wholesome diet) and apathya (unwholesome diet) for liver.

YOGA, DHYANA AND VYAYAMA (YOGIC POSTURE, MEDITATION, AND PHYSICAL EXERCISE)

Pranayama (Breathing exercise), Asana (Yogic posture), and dhyana (Meditation) are very popular in clinical medicine for Nonpharmacological approaches in many non-communicable diseases in past one decade. Yoga therapy has proven efficacy in obesity, pre-diabetic and correct liver function. The efficacy of Surya namaskar (Sun salutation) on NAFLD is well studied with inconclusive result. The efficacy of other yogic practices like - Kapalabhati pranayama, Ardha matsyendrasana, Gomukhasana, Dhanurasana, Balasanaand and Dhyana (Meditation) very useful NAFLD as well as NASH.

Meditation is the art of efficient and adaptive management of neurobehavioral energy, with total engagement or disengagement of conscious mental processes and sensory awareness. Practice meditation over a time (minimum 12 weeks) can change perception, attention and cognition with an increase of positive attitude and energy by means of deep relaxation. It was observed that long term practice of meditation (minimum 12 weeks) decrease craving for alcohol and nicotine, decrease peer pressure and reduce physical symptoms of withdrawal. So, practice of Yoga and dhyana can prevent the Liver disease or prevent the progression of Liver diseases [5].

Physical exercise in moderate intensity more than 200 minutes per week can reduce fatty liver index, intrahepatic fat and reduce NAS.

Medicinal Plant	Bioactive Molecule	Pharmacological Effect on Liver
<i>Glycyrrhiza Glabra</i> (Jasti Madhu)	Glycyrrhizin	Anti-Viral, Anti-Inflammatory, Liver Protective, Anti Fibrotic, Anti-Tumor
<i>Bhumi Amla</i> (<i>Phyllanthus Niruri</i>)	Phyllanthin and Hypophyllanthin	Hepato-Protective, Antioxidant and Antiviral
<i>Andrographis paniculata</i> (Kirata tikta)	Andrographolide	Anti-Viral, Anti-Inflammatory, Liver Protective
<i>Curcuma Longa</i> (Haridra)	Curcumin	Anti-Viral, Anti-Inflammatory, Liver Protective, Anti-Cancer
<i>Picrorrhiza Kurroa</i> (Katuki)	Kutkoside, Picroliva	Liver Protective, Anti-Cancer
<i>Tinospora Cordifolia</i> (guduchi)	Diterpenoid Lactones, Glycosides, Steroids, Sesquiterpenoid, Phenolics	Anti-Fibrotic, Anti-Tumor, Immuno Modulator, Excess can Induce Liver Injury
<i>Swertia Chirayita</i> (Chireeta)	Ophelic Acid, Amarogentin, Chiratin	Anti-Viral, Anti-Inflammatory, Liver Protective, Anti Fibrotic, Anti-Tumor

Table 5: Evidence based herbs in Liver disorders.

HERBAL SUPPLEMENTS

Ayurveda herbs and products having defined biochemical active component can protect liver from oxidative stress, promote virus elimination, block fibro genesis, anti-

inflammatory, immune-modulating, liver regenerating and inhibit tumour growth in vitro and in vivo studies. The

important herbs are described in Table 5 for the therapeutic uses under the supervision of Ayurveda physician as certain herbs are also hepatotoxicity.

CONCLUSION

Diet, exercise and medicinal prevention or treatment of liver disease by plant-based medicine is an essential constituent of Indigenous medicine including Ayurveda. A well-balanced diet is important for liver health. A healthy

lifestyle includes additionally rejoicing with Pranayama, meditation, regular exercises, yogic postures, keeping smoke-free and alcohol-free, having good sleep, and drinking adequate water along with regular detoxification can keep the liver healthy and decrease the progression of liver disease. The intake amount of a certain plant, method of consumption, and combination of plants could be either hepato-protective or hepatotoxic depending on physical constitution and undelaying diseases [6].

REFERENCES

1. Zandi M, Adib-Hajbagheri M, Memarian R, et al. (2005) Effects of a self-care program on quality of life of cirrhotic patients referring to Tehran Hepatitis Center. *Health and Quality of Life Outcomes* 3(1): 1-8.
2. Stickel F, Hellerbrand C (2015) Herbs to treat liver diseases: More than placebo?. *Clinical Liver Disease* 6(6): 136-138.
3. Rastogi S, Rastogi R (2012) Ayurvedic intervention in metastatic liver disease. *The Journal of Alternative and Complementary Medicine* 18(7): 719-722.
4. Seeff LB, Lindsay KL, Bacon BR, et al. (2001) Complementary and alternative medicine in chronic liver disease. *Hepatology* 34(3): 595-603.
5. Panda AK, Bhuyan GC, Rao MM (2017) Ayurvedic intervention for hepatobiliary disorders: Current scenario and future prospect. *Journal of Traditional Medicine and Clinical Naturopathy* 6(210): 2.
6. Kumar PA, Deepti P, Kumar MR, et al. (2021) Effectiveness of yogic intervention in non-alcoholic fatty liver Disease: Case series. *International Journal of Current Research and Review* 13(19): 5-8.