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A REVIEW ON HERBAL MEDICINE: BLESSING OR CURSE

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ABSTRACT

Herbal medicine is an essential element of indigenous medical system in all over the world. The ethno botany provides a various resource for natural drug and development (fransworth1990). Herbal medicine played a essential role in world in prophylaxis and prevention of human aliments. carica papaya belongs to the family cacicaceae. It is used as herbal medicine as a antiseptic and antifungal, analgesic properties which treat the various disease such as cardiovascular, dengue, jaundice etc. Taking higher dose of plant extract and improper method cause toxicity which lead to mortality. Herbal medicine is also help in primary health care. This review explain about issue realating of herbal medicine and maximum blessing concern arising from the use of herbs and herbal product also highlighting some important challenges consist with their safety.

KEYWORD: Herbs, Medicine, Toxicity, Blessing, Carica Papaya.

INTRODUCTION

Herbal medicine is also known as phytonutrients, herbal medicine are obtained from natural source. Which is derived from plant source to treat the chronic and acute disease. Herbal medicine getting a global attention. in china, traditional herbal medicine are play a major role in treating and preventing severe acute respiratory syndrome (SARs). 8% of African population use herbal medicine for treating of illness and improving healthy. Herbal medicine play a important role in global health. china, India, United state of America (USA) research

investment in herbal medicine.[1] herbal medicine to begin with the form of crude drug like as tinctures, teas, powders, and other herbal formulation. The herbal plant are use for the alleviate purpose harbinger human history and forms the origin of much modern medicine. Clinical, pharmacological, studies of these herbal medicine which is obtained for the most part from plants. were the basis of some medicine like as digitoxin(from foxglove), quinine (cinchona bark). herbal medicine is always the confluence of about 75-80% of the world population for the most part in developing countries, for health care. According to the World health Organization(WHO), The use of herbal medicine throughout the world exceed that of the conventional drugs by two to three times. Currently WHO divided herbal medicines into 4 different category according to their beginning, evaluation and forms of current usage.

Indigenous herbal medicines.

Herbal medicines in systems.

Modified herbal medicine.

Imported products with a herbal medicines base.

Herbal medicine came under the Drug and cosmetic Act 1940 and rules 1945 in India.[2]

Indigenous herbal medicines

Indigenous herbal medicine contain those which were historically used in local area, society community or in region and are very well known as due to its long usage by the local or specified population in terms of its constitution, treatment and dosage. It is easily obtainable and can be used willingly as well as obtainable by the local community.

Herbal medicine in systems

It have been used in ancient time and are documented with their specific theories and concepts, and these are receive by the countries.

Modified herbal medicines

Modified herbal medicine in system have been achieve by accomplish changes in shape, from including dose, dosage form, mode of administration or application, ingredient of herbal medicine, method of formulation and medical indication.

Imported product with herbal medicines

Imported products with herbal medicine mainly coverup all imported herbal medicines containing raw materials and products.

Herbal medicine as blessing

Plants have generally medicinal effect which is provide a therapeutic effect against the crucial and acute condition of disease. Plants have some properties such as antioxidants that are critical for their survival environment. Antioxidant are reduce the health risk factor and improve health condition. It is effective against the chronic disease.[3]

Papaya

Carica papaya is a magical plant, which have numerous medicinal effect making it conservative one of the other 22 species of carica papaya. It is native from tropics of USA, may be in southern Mexico and neighbouring central America.

Toxonomical classification of papaya

Kingdom - plantae

Order - brassicales

Division - Mangnoliophyta

Subdivision – Spermatophyte

Class - magnoliopsida

Family - Caricaceae

Genus - Carica

Species - c. papaya

Properties of Carica papaya

Part of papaya plant are use for treating different disease. papaya leaf are the most powerful part one of the all used for the treatment of dengue, jaundice, ulcerative, stomatitis disease[4] Carica papaya leaf has been used in the prophylaxis of dengue fever. The leaf have properties prevention against dengue fever. The extract of papaya leaf show potential benefit against dengue fever by increasing platelets count, neutrophils, white blood cell in blood samples a adult patient affected by dengue fever. Taking orally 25ml of aqueous extract of papaya leaf to patient 2 times in a day daily, platelet count increase lead to less bleeding, thus prevent and cure of severe disease of DHF.[5]

Chemical constituents of carica papaya[10]

carica papaya is a important plant of herbal. leaf, fruits, seeds, root, latex and bark of the carica papaya are used as herbal medicine.

Table 1: Chemical composition of numerous part of carica papaya plant.

S.No.	Part of plant	Constituents
1.	fruits	Protein, fat, fibre, carbohydrates, minerals, calcium, phosphorus, iron, vitamin C, thiamine, riboflavin, niacin, and caroxene, amino acid, citric acids and molic acid (green fruits), volatile compounds : linalol, benzylisothiocynate, cis and trans 2, 6-dimethyl-3,6 expoxy-7 octen-2-ol. Alkaloid, α; carpaine, benzyl-β-d glucoside, 2-phenylethl-β-D-glucoside, 4-hydroxyl -phenyl-2 ethyl-B-D glucoside and four isomeric malonated benzyl-β-D glucoside
2.	juice	N-butyric, n-hexanoic and n-octanoic acids, lipids; myristic, palmitic, stearic, linoleic, linolenic acids-vaccenic acid and oleic acid
3.	seed	Fatty acids, crude proteins, crude fibre, papaya oil, carpaine, benzylisothiocynate, benzylglucosinolate, glucotropacolin, benzylthiourea, hentriacontane, β-sistosterol, caricin and an enzyme nyrosi
4.	Root	Arposide and an enzyme myrosin
5.	Leaves	Alkaloids carpain, pseudocarpain and dehydrocarpaine I and II, choline, carposide, vitamin C and E β-sitosterol, glucose, fructose, suc

6.	Bark	β-sitosterol, glucose, fructose, suc β-sitosterol, glucose, fructose, sucrose, galactose and xylitol
7.	Latex	Proteolytic enzymes, papain and chemopapain, glutamine cyclotransferase, chymopapain A, B and C, peptidase A and B and lysozymes

Antithrombocytopaenic Conditioning

Carpaine is reported to parade potent exertion in sustaining platelet counts up to 555.50 ±85.17 × 109/ L on busulfan convinced thrombocytopenic Wistar rats flaunting no acute toxin. In order to determine the platelet count adding energy Carica papayaL. splint excerpt a study was carried (Singhal Abida etal., 2013) in a murine model. Results were veritably significant as increased platelet and RBC count in the test group compared to that of controls was observed. Starting from day 3(3.4 ±0.18 × 105/ shop) the platelet count increased to nearly fourfold advanced at day 21(11.3 × 105/ shop) in test group which was nearly further than double in comparison to control. The RBC also increased significantly. Hence, through this study, the conclusion was made to appreciate the recommendation of Carica papayaL. splint excerpt to boost thrombopoiesis and erythropoiesis in humans and creatures where these cell lineages have been compromised. Regarding the part of Carica papayaL. leaves in a patient suffering from dengue fever, a case study has also been bandied(Nisaar etal., 2011). The 45- time-old patient suffering from dengue fever was administered with 25 ml waterless excerpt of Carica papayaL. splint twice a day for 5 successive days. Pre andpost-treatment blood samples were anatomized for platelet count, WBC, and neutrophils. PLT count increased from 55 × 103 µl to 168 × 103 µl. Hence threefold increase in PLT, twofold in WBC and 70 increase in neutrophils were observed. So it was concluded from cases feeling and blood reports that Carica papaya L. leaves waterless excerpt parade implicit exertion against dengue fever.

Analgetic exertion

The three excerpts of leaves of Carica papaya L. have been estimated for their analgesic exertion in mice model having acetic acid induced pain (Siegmund system). These three excerpts (n- hexane, ethyl acetate, and ethanol excerpts) displayed significant analgesic exertion at all the three cure situations(0.175,0.35 and 0.70 mg/ kg bw orally) when compared to aspirin (taken as the standard medicine).

Antiplasmodial exertion

Leaf excerpts of Carica papayaL. parade high antiplasmodial exertion with low cytotoxicity. This exertion is shown by three alkaloids 7, 8, 9. composites were tested for bioactivity in-vitro against four spongers (Trypanosoma brucei rhodesiense, Trypanosoma cruzi, Leishmania donovani, and Plasmodium falciparum), and in the Plasmodium berghei mouse model. This study concludes that the antiplasmodial exertion of papaya leaves was verified and might be linked to alkaloids. Among these alkaloids, carpaine was largely active and picky in- vitro.

Antitumor and Immunomodulatory Activity

A study has been completed to assess the antitumor and immunomodulatory exertion of Carica papaya L. splint waterless excerpt. In this study, the goods of Carica papaya L. excerpt on the proliferative response of excrescence cell lines were observed. Through(3H) thymidine objectification the cytotoxic conditioning of mortal supplemental blood mononuclear cells(PBMC) was also assessed. Results were reflective of significant growth inhibitory exertion of this excerpt on excrescence cell lines. As far as PBMC concerned the splint excerpt reduced the product of IL- 2 and IL- 4. The expression of 23 immunomodulatory genes was enhanced by this excerpt. Index labels of immunomodulatory goods were also set up. Conclusively this study revealed that the Carica papaya L. splint excerpt may intervene a Th- 1 type shift in the mortal vulnerable system. The excerpt may potentially give a link for treatment of melanoma, antipathetic diseases and serve as immunomodulator in mortal. The antiproliferative response of Carica papaya L. splint juice has been assessed on a range of cell lines representing benign hyperplasia, tumorigenic and normal cells of prostate origin. A time course analysis of ahead and later by- vitro digestion and of the molecular weight grounded bit of splint juice showed significant antiproliferative response.

The cytotoxic effect of medium opposition bit of splint juice(0.03-0.003 mg/ mL) was seen on all prostate cells excepting of the normal cells. The medium polar bit has also been set up to inhibit migration and adhesion of metastatic PC- 3 cells. The S phase cell cycle arrest and apoptosis were allowed to be a possible medium for these conditioning on the base of inflow cytometric study. Hence this study reports about the antiproliferative and antimetastatic parcels of Carica papaya L. splint excerpt against prostatic conditions including PCa Proliferative exertion of Saponin- Reducing Carica papaya L. leaves excerpts on mortal lung fibroblast cell (IMR90) has also been studied.

Antidiabetic exertion

A study regarding the assessment of antidiabetic exertion of Carica papaya L. splint excerpt was carried out in an experimental rat model. The chloroform excerpt which correspond steroid and quinines was administered at colorful cure situations in streptozotocin induced diabetic andnon-diabetic rats. After 20 days of treatment, the immolation was done and the biochemical study was carried out. There was a significant reduction in serum glucose, transaminases and triglyceride observed in diabetic rats after the administration of Carica papaya L. splint chloroform excerpt. This study concludes the implicit exertion of C. papaya splint to treat the symptoms of diabetic cases.

Antimicrobial exertion

In order to probe the antimicrobial exertion of different excerpts of leaves of Carica papayaL. (Baskaran etal., 2012), it was observed that the ethanol, methanol, ethyl acetate, acetone, chloroform, petroleum ether, hexane and waterless excerpt showed exertion against bacteria and fungus. Among these excerpts, the chloroform excerpt was set up more active against Micrococcus luteus bacteria whereas acetone excerpt was more active against Candida albicans fungus. Hence it was concluded that excerpts of Carica papayaL. leaves retain antibacterial and antifungal exertion against several mortal pathogenic bacterias and fungi.

Medicinal effect

The numerous part of papaya leaves contain medicinal properties in the treatment of many chronic disease. papaya extract and unripe fruit of papaya have been property which protect kidney and provide nutrients to the human body. Papaya leaf and seed are used for the treatment of tumour disease. Papaya seed is treat intestinal worm. Papaya leaf used as medicinal leaf for the purification of blood and used as antiseptic agent.it is improve digestion and maintain obesity, high blood pressure, high fever, etc.

Cosmetic benefits

The pulp of carica papaya rubbing on the skin it minimize the skin problem as well as redness, pimples, wrinkles, dark spot. It is used as brightening agent, bleaching agent, lightning agent for skin improvement. Home remedies of papaya inhance the skin problem and remove dead cells and replace with new cells and improve lighting of the tone of skin.[6]

Adverse reaction of Cosmetics

Skin Sanctification agents remain on the body for a veritably short period of time and infrequently beget significant adverse responses, still, incense and others ingredients may beget skin vexation and antipathetic responses. Moisturizers increase the hygroscopic parcels of the skin; still, high attention of these substances may beget vexation and exfoliation.

Skin lightening/ depigmenting agents, similar as hydroquinone (HQ), are one of the most extensively specified agents. Ochronosis is an uncommon adverse effect of HQ, characterized by progressive darkening of the area to which the cream containing high attention of HQ is applied for numerous times.

Black henna' tattoo is a chemical stain due to pphenylenediamine (PPD), in the form of marketable hair color mixed into the henna paste. Addition of this artificial color stains the skin in important shorter duration, an hour or lower. Adverse responses to PPD can include smarting sensations, with an erythematous rash, swelling, pocks, and face oozing.

Adverse goods to sun- webbing agents may affect in inconvenience, antipathetic, phototoxic, or photoallergic responses, and caused not only by the active ingredients but also by the complements similar as spices and stabilizers. Benzophenones are presumably the most common sensitizers, while dibenzoylmethanes, para-aminobenzoic acid (PABA), and cinnamates may beget photoallergic dermatitis.

The antipathetic responses associated with deodorants and spices are generally caused by scent or other constituents. scent can enter the body through lungs, airways, skin, ingestion, and via pathways from the nose directly to the brain and can beget headaches, vexation to eyes, nose, and throat, dizziness, fatigue, obliviousness, and other symptoms. scent is the number one cause of skin antipathetic responses to cosmetics.[11]

Toxicity of papaya

Cytotoxic effect

All the success fraction of extract with methanol at higher concentration of aqueous extract of papaya causes more cytotoxicity lead to death by using the BSL method which was explained. The extract of papaya leaf at higer concentration causes mortality.[7]

Carica papaya latex causes contractions of uterus leading to miscarriage

Papaya leaf extract use in higher dose may lead to harmful and damage the liver, and cause gastritis. Its cause several allergic reaction in sensitive people. At large dose Papaya cause skin irritant.

Factors responsible for curse of herbal medicine

Herbal medicine contain unripe plant extract contain several composition various blame on the safety or efficacy of herbal medicine. defect belief the herbal medicines are superior to manufactured products.

Influence of regulatory policies

It has been show that most of the issues associated with the use of herbal medicine arise many product of herbal medicine classified such as foods, juice or dietary fibers in some countries. Quality and efficacy is not obtain before marketing. The common misconception that herbal medicines are not harmful destitute of side effect often lead to inappropriate use and unbalanced access and this has also resulted in severe toxicity and acute health problem

Toxicity of herbal medicine

In most countries herbal medicine enter in market without any toxic evaluation parameter. Most of these countries also less efficacy instruments to formulation practice and quality standards. Herbal medicine obtain toxic effect which cause death.[8]

Present scenario

The herbal are phytonutrients continue to spread faster throughout the world. Most of the people now resorting the herbal medicine for the prophylaxis of numerous health challenges.

In different countries health care setting. Last decennary see a surge in public well being for herbal medicine both in develop and developed countries. The part of population that still propagation on practitioner and herbal medicine for their primary care in countries like -India up to 70% of the population, Africa up to 90%,china 40% and more than 90% of general hospital in china have unit for herbal medicine. At present, herbs are used for the prophylaxis of chronic and acute disease and various disease and issue such as COVID 19, Cardiovascular, depression, dengue, jaundice, and to boost immunity.[3]

Future prospects of herbal medicine

There is a promising future of herbal medicine as there are about half millions herbs around the universe, and most of them are not discovered even for their therapeutic activity and their

potential of therapeutic activity could be decisive in the prophylaxis of current and future studies.

In the development of human herbal plant are played an important role, such as religious and ceremonies among the species of herbal medicine, most of them are produced indirectly from herbal plants, for example digitoxin. Many food crops have therapeutic effect, for example carica papaya. Studying herbal plants use to understand herbs toxicity and prevent human and animals from herbal poisons. The therapeutic effect of plants are due to secondary metabolites production of the herb.[9]

CONCLUSION

Herbal products are growing body of research for the development of new medicine derived from different organism. Herbal medicine are taken and absorbed to prevent all type of severe illness and disease. All herbal medicine or supplement used to prophylaxis disease and acute disease. Herbal medicine show less side effect comparison to other medication.

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