

Socio-Eco Concept of Herbal Drugs

(A Case study of Turmeric & Garlic)

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Turmeric :-Turmeric,an essential ingredient of most Indian curries, the spice was paid tribute by Marco Polo; he compared it favorably to saffron, and noted its importance in traditional medicines. Indeed, Indian doctors have long reached for the knobby yellow root to treat a variety of ailments from skin disease to stomachache and infection. Turmeric has been a traditional household item for centuries and is often used in conjunction with Neem as a purifying herb that promotes healthy skin through systemic blood purification. Its effect in wound healing has been well documented. *Curcuma longa* is a rhizomatus, perennial herb with tufted leaves. Its rhizome contains Curcumin. It is an auspicious article in all religious observances in Hindu households. The antioxidant properties of the powder are probably due to the phenolic character of Curcumin. It also has anti-inflammatory and cytotoxic activity. It reduces cholesterol levels and helps control blood sugar. In Indian systems of medicine, turmeric is used as a stomachic, tonic and blood purifier. It is also prescribed as an antiperiodic alterative. Mixed with warm milk it is said to be beneficial in common cold. The juice of the fresh rhizome is used as an anti parasitic for many skin affections. Externally, it is applied to ulcers, and a paste made from the powdered rhizome with lime is a remedy for inflamed joints. A decoction of the rhizome relieves the pain of purulent ophthalmia. Oil of turmeric, distilled from the dried rhizomes, has mild antiseptic properties. It is an antacid and, in small doses, acts as a carminative, appetizer and tonic. In large doses, however, it appears to act as an **antispasmodic inhibiting excessive peristaltic movements of the intestines.**"

Medicinal Uses and indications :-While turmeric has a long history of use by herbalists, most studies to date have been conducted in the laboratory or in animals and it is not clear that these results apply to people. Nevertheless, research suggests that turmeric may be helpful for the following conditions.**Digestive Disorder.** stomach upset, gas, abdominal cramps): The German Commission E (an authoritative body that determined which herbs could be safely prescribed in that country and for which purpose[s]) approved turmeric for a variety of digestive disorders. Curcumin, for example, one of the active ingredients in turmeric, induces the flow of bile, which helps break down fats. In an animal study, extracts of turmeric root reduced secretion of acid from the stomach and protected against injuries such as inflammation along the stomach (gastritis) or intestinal walls and ulcers from certain medications, stress, or alcohol. Further studies are needed to know to what extent these protective effects apply to people as well.**Osteoarthritis** Because of its ability to reduce inflammation, turmeric may help relieve the symptoms of osteoarthritis. A study of people using an Ayurvedic formula of herbs and minerals containing turmeric as well as *Withania somnifera* (winter cherry), *Boswellia serrata* (Boswellia), and zinc significantly reduced pain and disability. While encouraging for the value of this Ayurvedic combination therapy to help with osteoarthritis, it is difficult to know how much of this success is from turmeric alone, one of the other individual herbs, or the combination of herbs working in tandem.

Atherosclerosis :-Early studies suggest that turmeric may prove helpful in preventing the build up of atherosclerosis (blockage of arteries that can eventually cause a heart attack or stroke) in one of two ways. First, in animal studies an extract of turmeric lowered cholesterol levels and inhibited the oxidation of LDL ("bad") cholesterol. Oxidized LDL deposits in the walls of blood vessels and contributes to the formation of atherosclerotic plaque. Turmeric may also prevent platelet build up along the walls of an injured blood vessel. Platelets collecting at the site of a damaged blood vessel cause blood clots to form and blockage of the artery as well. Studies of the use of turmeric to prevent or treat heart disease in people would be interesting in terms of determining if these mechanisms discovered in animals apply to people at risk for this condition.

Cancer :-There has been a substantial amount of research on turmeric's anti-cancer potential. Evidence from laboratory and animal studies suggests that curcumin has potential in the treatment of various forms of cancer, including prostate, breast, skin, and colon. Human studies will be necessary before it is known to what extent these results may apply to people.**Roundworms and Intestinal worms** Laboratory studies suggest that curcuminoids, the active components of turmeric, may reduce the destructive activity of parasites or roundworms.

Liver Disease :-Animal studies provide evidence that turmeric can protect the liver from a number of damaging substances such as carbon tetrachloride and acetaminophen (also called paracetamol, this medication, used commonly for headache and pain, can cause liver damage if taken in large quantities or in someone who drinks alcohol regularly.) Turmeric accomplishes this, in part, by helping to clear such toxins from the body and by protecting the liver from damage.

Bacterial Infection :-Turmeric's volatile oil functions as an external antibiotic, preventing bacterial infection in wounds.

Wounds :-In animal studies, turmeric applied to wounds hastens the healing process.

Mosquito Repellent :-A mixture of the volatile oils of turmeric, citronella, and hairy basil, with the addition of vanillin (an extract of vanilla bean that is generally used for flavoring or perfumes), may be an alternative to D.E.E.T., one of the most common chemical repellents commercially available.

Eye Disorder :-One study of 32 people with uveitis (inflammation of the uvea, the middle layer of the eye between the sclera [white outer coat of the eye] and the retina [the back of the eye]) suggests that curcumin may prove to be as effective

as corticosteroids, the type of medication generally prescribed for this eye disorder. The uvea contains many of the blood vessels that nourish the eye. Inflammation of this area, therefore, can affect the cornea, the retina, the sclera, and other important parts of the eye. More research is needed to best understand whether curcumin may help treat this eye inflammation

Garlic :-Garlic is a member of the onion family and is nature's most versatile medicinal plant. Garlic has been used all over the world for thousands of years for a wide range of conditions. It has been prized since the first records of civilization for its uses in treating wounds, infections, tumors, and intestinal parasites. Modern scientists in numerous clinical trials have concluded that Garlic lowers cholesterol, lowers blood pressure, thins the blood (which reduces your risk of heart attack and stroke) and fights bacteria like an antibiotic. Garlic is a potent antioxidant that has been found to inhibit tumor cell formation and is currently being studied by the National Cancer Institute. It may be effective in fighting stomach, skin and colon cancer. Though it is best known as a culinary herb and vampire retardant, the medicinal benefits and claims for garlic have awarded it the name "Wonder Drug among all herbs". Modern day research helps explain the broad applications of this "miracle" herb. Garlic bulbs contain the amino acid allicin. When crushed, allicin is released. This chemical element is the component that gives Garlic its strong odor and is responsible for the powerful pharmacological properties of the plant. One medium clove of Garlic can equal the antibacterial action equivalent to 1% penicillin. Garlic also contains about 0.5% of a volatile oil that is composed of sulfur-containing compounds. Garlic's sulfur compounds, in addition to Selenium and Vitamins A and C containing compounds, make it a potent antioxidant, protecting cell membranes and DNA from damage and disease.

Although Garlic directly attacks bacteria and viruses, it also stimulates the body's natural defenses against foreign invaders. Garlic is reported to be more effective than penicillin against typhus disease, and works well against strep, staph bacteria, and the organisms responsible for cholera, dysentery and enteritis.

It is generally regarded as a preventative measure for colds, flu and other infectious diseases. Furthermore, scientific studies have shown that garlic stimulates the production of the liver's own detoxifying enzymes which neutralize carcinogens and other environmental toxins. It has also been used to rid the body of intestinal parasites and to treat digestive infections. Researchers have been studying the anti-cancer properties of Garlic since the 1940's. It appears that the herb may prevent cells from turning cancerous by enhancing the body's mechanisms for removing toxic substances. Garlic's phytochemicals are believed to enhance immunity and the National Cancer Institute (January 1992) reported that people who ate the greatest amount of onions and garlic had the lowest incidence of stomach cancer. Other types of cancer have also been reported as lower.

Furthermore, garlic increases the activity of white blood cells and T-helper cells (natural killer cells), the cells that are central to the activity of the entire immune system. Garlic supplements can improve many of the processes that can lead to cardiovascular disease. Garlic has been used as a blood thinner and anticoagulant to resolve blood clots and improve circulation. It has been shown to lower cholesterol while increasing the level of beneficial HDLs (high-density lipoproteins), the so-called good cholesterol.

Garlic has no side effects like those associated with cholesterol lowering drugs. (Take garlic for at least two or three months, as often in the first month or two cholesterol may actually slightly rise.) In addition, garlic compounds gently lower blood pressure by slowing the production of the body's own blood pressure raising hormones. At least seventeen clinical trials have shown that mild hypertension can be effectively managed with garlic. Garlic has great value as a long-term dietary supplement, helping to maintain healthy circulation, balance blood sugar and pressure, reduce fat levels in the blood, and improve resistance to infection. It can be taken with conventional antibiotics to support their action and ward off side effects.

Garlic has also been used in treating upper respiratory infections (especially bronchitis), late-onset diabetes, urinary infections, acne, asthma, sinusitis, arthritis, and ulcers.

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