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REVIEW ARTICLE

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Focus on Some Popular Indigenous Plants, Herbs and Fruits in Traditional Medicine: A Review

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ABSTRACT

The neem bark, leaves, and seeds are used to make medicine. Less frequently, the root, flower, and fruit are also used. Salimuzzaman Siddiqui was the first scientist to discover the antibacterial, antiviral, anthelmintic and antifungal, constituents of the Neem tree. In 1942, he extracted three bitter compounds from neem oil, which he named as nimbin, nimbinin, and nimbidin respectively. Centella asiatica, commonly known as centella, is a small, herbaceous, annual plant of the family Mackinlayaceae, or subfamily Mackinlayoideae of family Apiaceae, and is native to Asian countries. It is commonly used in Ayurvedic medicine, traditional African medicine, and traditional Chinese medicine as a medicinal herb. For its potential application as herbal medicine for therapeutic purposes, the present review attempts to highlight on the various research based facts and issues related to it. The papaya fruit is very common in Asian continent for its wide culinary and medicinal uses. The raw papaya is cooked as vegetable, while the ripe one is served in salads as fruit. It has a characteristic aroma and deliciously sweet and tender to taste. The present article discusses on its potentiality of various medicinal herbs and fruits for use in folk and traditional Asian and African medicine as it are a reserve source of dietary enzymes and vitamins.

Key words: Fruits, Indigenous Plants, Traditional Medicine and Centella asiatica.

INTRODUCTION

Neem leaf is used diseases of the heart and blood vessels (cardiovascular disease), fever, diabetes, gum disease (gingivitis), for leprosy, eye disorders, bloody nose, intestinal worms, stomach upset, loss of appetite, skin eczema, ulcers and hepatic disorders. Papaya is also applied topically for the treatment of cuts, rashes, stings and burns (Ganguly, 2014a). Papain, a notable protease remains present in papaya. It is believed that it can raise platelet levels in blood. Papaya may be used as a medicine for malaria and dengue fever for its antimalarial and antiplasmodial properties. The raw papaya and its leaf are also used for meat tenderizing for the papain content in the fruit (Ganguly and Bordoloi, 2014). *Centella* is a plant which grows in tropical swampy areas. The stems of *Centella* are slender with creeping stolons, green to reddish-green in color, connecting plants to each other. It has long-stalked, green, reniform leaves with rounded apices which have smooth texture with palmately netted veins. The leaves are borne on pericladial petioles nearly 2 cm length. *Centella* grows in low lying wet areas along ditches. As the plant is aquatic in habitat, it is especially sensitive to pollutants in the water (Ganguly and Bordoloi, 2014).

Multivarious Biomedical Implications and Importance in Ayurvedic System of Medicine

Centella helps in the increase of hemoglobin in blood. It also promotes improvement in the venous system and encourages positive connective tissue growth. The herb is recommended for the treatment of various skin conditions such as leprosy, lupus, varicose ulcers, eczema, psoriasis, diarrhea, fever, amenorrhea,

diseases of the female genitourinary tract and also for relieving anxiety and improving cognition. *Centella asiatica* is a popular addition to many skin creams and therapies. Extract of *centella* can be found in body slimming tonics, body-firming products, and anti-aging products. For decades, this herb has proven itself to be miraculous in terms of scar and wound healing. *Centella asiatica* is useful in alleviating many maladies, including stress, asthma, hemorrhoids and even leprosy. Doctors have used it successfully in pregnant women during and post pregnancy. It can be used to discourage varicose veins and stretch marks, and then again after birth for healing (Ganguly and Bordoloi, 2014).

The neem bark is used for malaria, stomach and intestinal ulcers, skin diseases, pain, and fever. The flower is used for reducing bile, controlling phlegm, and treating intestinal worms. The neem fruit is used for treatment of urinary tract disorders, bloody nose, phlegm, eye disorders, hemorrhoids, intestinal worms, diabetes, wounds, and leprosy. Neem twigs are used for cough, asthma, hemorrhoids, intestinal worms, low sperm levels, urinary disorders, and diabetes. The seed and seed oil are used for leprosy and intestinal worms. They are also used for birth control and to cause abortions. The stem, root bark, and fruit are used as a tonic and astringent. Some people apply neem directly to the skin as a skin softener and in treatment of skin diseases, wounds, and skin ulcers and as a mosquito repellent. Neem contains chemicals that might help reduce blood sugar levels, heal ulcers in the digestive tract, prevent conception, kill bacteria and prevent plaque formation in the mouth. People in the Indian villages and towns practice the chewing of neem twigs instead of using

toothbrushes. Neem twigs are often contaminated with fungi within 2 weeks of harvest and should be avoided. Neem leaves are burnt to repel insects and flies from the crop fields ((Ganguly, 2014a).

Neem products are popular and predominantly in demand in Ayurveda for its antibacterial, antiviral, contraceptive, anthelmintic, antifungal, antidiabetic, and sedative properties. In Ayurvedic and Unani medicine it is recommended for skin diseases. Neem oil is also used for detoxification of blood, to balance blood sugar levels, healthy hair and to improve liver function. Neem leaves have been also been used to treat skin diseases like eczema, psoriasis, etc (Ganguly, 2014a).

Papaya fruit is a source of nutrients such as a carotenoids, vitamin C, folate and dietary fiber. Papaya skin, pulp and seeds also contain a variety of phytochemicals, including lycopene and polyphenols (Ganguly, 2014b).

Significance for use in Cosmetics and Topical Supplements

Papaya is a good topical supplement for treatment of acne, skin infections and wounds. The flesh of papaya is rich in dietary fiber and thus helps in lowering blood cholesterol. It prevents premature ageing and in treatment of endoparasitic worms in gastrointestinal tract. Papaya fruit aids in proper digestion and prevents constipation. It keeps colon infection away and helps in curing morning sickness and nausea. In addition, it contains anti-inflammatory enzymes which help in curing osteoporosis in elderly people and in alleviating joint arthritis (Ganguly, 2014b).

In obese people, it acts as a weight reducer and in controlling body weight. Papaya helps in preventing menstrual cramps and

helps in maintaining regular menstrual flow. Papaya is a rich source of Vitamins A and C and thus promotes immunity (Ganguly, 2014b).

Shampoos and soaps contain papaya extracts as it helps in preventing dandruff and hair fall. It helps in regulating the growth of cancerous cells in hepatic cancers and also prevents renal problems by inducing antioxidant and oxidative free radical scavenging (Ganguly, 2014b).

CONCLUSION

However, more sufficient researches are in demand to be carried out to establish the medicinal facts of the mentioned indigenous plants and fruits. In infants, use of neem oil is fatal. Some disadvantages of neem include miscarriages, abortions and infertility. Although, American Cancer Society recommends the *Centella* herb for having anticancerous properties, but research in this regard are in progress. Preliminary experimental animal researches have proved that the papaya seeds have potential contraceptive and abortifacient effect, but are non-teratogenic for the presence of phytochemicals in it.

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