EDITORIAL

TURMERIC: AN ALL HEAL DRUG

Since early man became conscious of his surroundings, he started picking up plants and plant parts for his use as food. Food being the primary requirement for his survival he became hunter and gatherer. He used to travel far and wide to meet the needs of his food requirement. Later he learnt to kill small animals to feed himself or to protect him from dangerous ones.

After thousands of years of his experience with plants, to feed him, he started realizing its other qualities, besides its food value. The importance of plants as healing agent must have dawned on him after very long period of experience.

Out of some important drugs which were used by early man turmeric is one of those which has great medicinal importance. Though he may not have realized the ingredients, or the active principles, which might be working as a healing agent he used it intuitively. The medicinal value of turmeric is innumerable and considered by some as wonder drug or all-heal.

Turmeric is easy to grow by using cutting of rhizome which if allowed to grow produce aerial stem. The rhizomes are removed from the ground only when the upper part has dried.

Because of its high potential both as spice and medicine, the early man included it in his food. Instead of calling it as a medicine they called it spice. Turmeric is the prepared rhizome of *Curcuma longa* (syn: *C. domestic*) a native of southern Asia. It is no longer known in wild state. Cultivated in India, China, Java and other tropical countries. The rhizome has long been employed both as spice and as colouring agent.

The bulb-shaped rhizome is dug up after the aerial herbaceous parts of the stem are dried down. The rhizomes are steamed in their own juice or boiled in water for half to one day and then dried in the sun or in oven, it is then sorted in “finger” and “bulbs”. Fingers, or long turmeric, occur in curved or nearly straight cylindrical pieces, tapering at each end. The outer surface is deep yellowish-brown, longitudinally wrinkled and marked with transverse ring. Internally it has uniform dull brownish-yellow, waxy appearance and tough, horny texture. The drug has a characteristic, aromatic odour and taste and when chewed colours saliva-yellow.

Turmeric rhizomes are available as a ready-prepared and ground dark yellow powder, with a characteristics taste and odour.

This drug is used in various religious ceremonies by Hindus and Buddhists. Powder is used as colouring matter in food ingredients. Curcumin is used in dyspepsia and other gastrointestinal problems. Curcuminoids (Curcumin) containing several phenolic diarylheptanoids including Curcumin, monodemethoxycurcumin and an bisdemethoxycurcumin an essential oil (3-5%), containing about 60% sesquiterpene, ketone (turmerones) including arturmerone, α-altantone, zingiberene with boneole, α-phellandrene eugenol and others, and polysacharides such as glycans, the ukonans A-D.

Turmeric is becoming increasingly popular in the west as an anti-inflammatory and anti-hepatotoxic agent. In UK it has been used as veterinary medicine for canine arthritis. It is used in Ayurveda and Chinese medicine as anti-inflammatory, anti-hepatotoxic, digestive, blood purifier, antiseptic and general tonic. It is given internally and also applied externally to wounds and insect bite. The action is attributed to curcuminoid, some essential oil compounds are also
anti-inflammatory.

Curcumin has been tested as anticancer drug and inhibits βNOS ( inducible nitric oxide syntheses) in both *vitro* and in *vivo*. The curcuminoid have antioxidant activity and an antioxidant heat stable peptide has been isolated.

Turmeric and the curcuminoids are hepatoprotective against liver damage induced by various toxins including paracetamol (acetaminophene) aflatoxin and cyclophosphamide. Turmeric protects against stomach ulcer in rats and produces antispasmodic effect. It is also hypoglycaemic in animals and hypcholesterolaemic effects have also been observed in animal and human clinical studies. Immunostimulant activity, due to the polysaccharide fraction, has been shown and anti-asthmatic effects have been noted together with antimutagenic and anticarcinogenic effect. Turmeric is antibacterial and antiprotozoal in *vitro*.

Turmeric had been used against depression since long, in the old traditional system of India and China. It is a natural painkiller and quickens healing process. It also helps in remodeling of damaged skin and prevents Alzheimer disease by removing amyloid plaque built up in the brain.

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