

Turmeric - A Golden Spice

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INTRODUCTION

Cucurma longa is a rhizomatus herbaceous perennial plant belonging to Zingiberaceae family Priyadarsini, K.I. (2014) Turmeric is called “queen of spice” because of its sharp flavour and yellowish color. It is one most useful herbal medicinal plants. Medicinal plants have provided a reliable ,turmeric is highly regarded as a universal panacea in the herbal medicine with a wide spectrum of pharmacological activities. It has been used in India for thousand of years as both a spice and medicinal herb. Turmeric is also called curcumin, which is the active ingredient in the spice. When used as spice in food, turmeric powder is yellow in colour. Curcumin is the main active ingredient in turmeric. It has powerful anti-inflammatory effect and is a very strong antioxidant.



List of Phytochemical in turmeric

S. No.	Components	Percentage of components (%)
1.	Curcumine	3-4
2.	Carbohydrate	69.4
3.	Protein	6.3
4.	Fat	5.1
5.	Minerls	3.5
6.	Zingiberine	25
7.	Sabienene	0.6
7.	Cineol	1
8.	Borenol	0.5

Chattopadhyya *et al*, (2004)

Turmeric has several therapeutic effects. The following most important effect of turmeric or curcumin.

Effective in diabetic effect and cardiovascular

Turmeric decrease sugar level that present in blood and also complication mellitus. Decrease. Turmeric exerts cardiovascular effect mainly by antioxidant activity, lipid peroxidation lower rate, and inhibit the platelets and also decrease chloestrol level due to decrease cholesterol uptake in the intestine and increase modification to chloestrol to bile acid in the liver.

Gastrointestinal effect

Curcumin reduced mucosal injury in mice with experimentally –induced colitis. It also inhibit ulcer formation caused by alcohol, stress, increasing gastric mucos, Curcumin induced pancreatitis and decrease inflammation and inhibit the inflammatory mediator , result in amelioration in the many disease severity as potent by neutrophil, infiltration, serum amylase, pancreatic trypsin etc Kwon Y and Magnuson BA ,(2009)

Anticancer effect:

Curcumin is effeactive compound for cancer it is inhibit carcinogenic at three stages

1. Angiogenesis stage,
2. Tumor promotion stages
3. Tumor growth stages

Turmeric extract effective fir suppressing inflammation and protecting the

epidermal cells from from the damage of ultra violet rays .Turmeric extract effective fir suppressing inflammation and protecting the epidermal cells from from the damage of ultra violet rays It (curcumin) is effective to inhibit cell proliferation and tumor growth also suppress the several mutagens and carcinogens. Curcumin protect aginst chromosomal damage that caused by gamma radiation Khajehdehi P (2012)

Effective in antimicrobial activity:

Curcumin inhibit the growth of several bacteria, pathogenic, fungai and other harmful microorganism. The extracted of curcumin inhibit the cell growth of different micro-organism and prevent many disease and other harmful effect .

Alzheimer diseases:

Turmeric is known as crucial roles in the ancient Indian medical practiseof Aurved medicine, It is also known as homeopathy medicine the western world. Alzheimer disease known as dementia. In dementia condition patient to have problem behaviour and memory. Turmeric contain several type of cholesterol lowering and anti-inflammatory prportiesthat are effective for pathogenesis of dementia.

Curcumin reduced oxidative damages:

Persistent imbalance between the production of antioxidant and reactive oxygen species. Turmeric have therapeutic effect for wound healing and antioxidant effect of curcumin on

hypoxanthine-xanthine and induced damage to Hydrogen peroxide(ROS) induced damage to human fibroblastic and keratinocytes.

Anti-inflammatory activity

Curcumin is a beneficial and potent anti-inflammatory with species lipo oxygenase. It decreasing both a chronic and acute inflammation. Curcumin has protect from edema diseases at dose between 50 -200mg/g, in case of mice and curcumine also inhibit the mutagenic induction effect of ultra violet rays, Rao CV and Rivenson ,(1995)

Effective for Menstrual problem:

Turmeric have antispasmodic properties that effective for to smooth muscles and reduced menstrual and digestive cramping. Turmeric extract can take twice daily when two or three weeks before to expected menstrual

Anti-oxidant activity

Antioxidant traditional medicinal uses, and they are beneficial because they protect your body from free radical (Reactive oxygen species) and damage , curcumin is a effective antioxidant that can neutralize free radical. It can protect haemoglobin and lipid from oxidation.

CONCLUSION

Turmeric is the beneficial source of several type of chemical compound that prevents

various diseases. it can developed several types of drugs without harmful side effect specially for human body. According global prospectus is now changing towards the use non toxic or medicinal effect.

REFERENCES

- Chattopadhyay I, Biswas K, Bandyopadhyay U, Banerjee RK. Turmeric and curcumin: Biological action and medicinal application. *Curr Sci India* 2004;8744-53
- Khajehdehi P. Turmeric: Reemerging of a neglected Asian traditional remedy. *J Nephrothol* 2012; 20121(1): 17-22.
- Kwon Y, Magnuson BA. Age related differential response to curcumin-induced apoptosis during the initiation of colon cancer in rats. *Food Chem Toxicol* 2009;47:377-85.
- Priyadarsini, K.I. The chemistry of curcumin from extraction to therapeutic agent. *Molecules* 2014,, 1920091-20112
- Rao CV ,Rivenson A, Simi B, Reddy BS. Chemoprevention of colon carcinogenesis by dietary curcumin, a naturally occurring plant phenolic compound *Cancer Res* 1995;55:259-66