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UNVEILING THE MEDICINAL GEM OF AYURVEDA- CINNAMON. A REVIEW OF TRADITIONAL THERAPEUTIC PROPERTIES AND MODERN PHARMACOLOGICAL PROPERTIES OF CINNAMON

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ABSTRACT

The scientific name of cinnamon is *Cinnamonmn zeylanicum* and commonly known as '*Dalchini'*. It is derived from the bark of Cinnamon tree. It is common culinary ingredient of Indian cuisine. The aim of review is to provide overview of cinnamon plant, its medicinal properties mentioned in *Ayurveda* and its antioxidant antimicrobial and antidiabetic properties are also discussed.

INTRODUCTION

It is found in in south eastern part on India, Sri Lanka and China.

Description- it is a perennial medium sized plant of height 10 to 20 feet. Leaves are shiny and have 3-4 ribs. The flowers are 1 inch in length and purple in colour. Flowers bloom in January and fruits ripe in May to August.

Part used- Bark, oil, leaves.

Dose- oil- 2-5 drops

Bark powder-1-3gms

Leave podwer-1-3gms

Traditional use of cinnamon in Ayurveda

Properties

Ras *– katu tikta kashaya*

Vipak*-katu*

Virya*- ushna*

Guna *– laghu ruksha tikshna*

Action

Chhedan and shlemhar– The word *chhedan* refers to excision. It means action of drug which penetrate the *dhatu* and remove the stagnant and sticky *dosha* and it help in eliminating *kapha dosha*. *Chedan Dravya* play vital role in removing phlegm and mucus from respiratory system.

Digestive disorder- it is good appetizer, carminative (prevent bloating).

Respiratory disease- it is used in ingredient of *sitopladi churna* which is mentioned by *Acharya charak* in *Rajyayakshma.* It has Cinnamic acid which has antitubercular properties.

Reproductive system-it has property which increase uterine contraction. In male it has aphrodisiac action.

Cardiovascular system- it is known as *Rakta shodak* (blood purifier) and strengthen the heart.

Pharmacological properties of cinnamon

Cinnamon contains following chemicals.

Cinnamaldehyde- It is an organic compound which gives cinnamon its flavour and colour.

It forms pale yellow viscous liquid in bark which is a phenylpropanoid.

Molar mass-132.16

Density-1.497

It is a used as fumigant and repellent.

It is an antifungal and antibacterial.

It is an insecticide which kills mosquito larvae. The concentration 29ppm of cinnamaldehyde kills half of aedes aegypti in 24 hours.

It acts as Dietary antimutagen which inhibit both induced and spontaneous mutation and stimulate DNA repair.

Experiment shows that cinnamaldehyde induce DNA Damage in *E. coli*.

It elicits recombinational DNA repair in humans.

In mice Cinnamaldehyde had been found as downregulating the glucose by upregulating expression of GLUT4 gene.

It also prevents protein tyrosine phosphate-1B which prevent type 2 diabetes and obesity.

Eugenol

Antimicrobial action

It is a hydrophobic molecule penetrate the cell membrane of bacteria and fungi and increase permeability of cell and leads to its disruption and free OH (hydroxyl) group of Eugenol inhibit enzymes like protease, carboxylase, amylase and ATPase which are necessary for survival of bacteria.

Anti-inflammatory action

Eugenol inhibit the cyclooxygenase-2 (COX-2) and 5-lipoxygenase(5-LOX) which prevent production of leukotrienes and prostaglandins.

It prevents mast cell degranulation and prevents release of histamine and leukotrienes.

Anticancer properties

Eugenol inhibit NF-kBTRiM59 pathway which is a cancer promoting pathway and it induce apoptosis (programmed cell death) and arrest cell growth which is crucial for uncontrolled growth of cell.

Cinnamic acid

It has chemical formula C6H5CH=CHCOOH.

It is a hepatoprotective, antioxidant and antidiabetic properties.

Trans-cinnamic acid was found bacteriostatic at 200microgram/ml against *Mycobacterium sp.*

Essential oil

It has antifungal antibacterial and antiseptic properties.

Coumarin

It acts as anticoagulant by acting as vitamin K Epoxide reductase inhibitor. And prevent recycling of vitamin k and a cofactor for carboxylation of clotting factor and it results reduced level of clotting factor ii vii x ix.

Modern application of cinnamon

Type 2 diabetes- it reduces blood sugar level and prevent insulin sensitivity in patients.

Cardiovascular disease- it reduces triglyceride, LDL cholesterol level and blood pressure in patients.

Neuroprotective action- cinnamon is beneficial in neurodegenerative diseases such as alzheimiers and parkinsonism due to its antioxidant activity.

CONCLUSION

Cinnamon is a medicinal marvel and its full potential is still unexplored. Although it offers range of pharmacological and therapeutic properties. Its properties like antioxidant antidiabetic and anticancer made it adjunct drug for various disease. Further keen research is required for establishing its therapeutic action efficacy and safety.

REFERENCES

1. Charaka Samhita by Agnivesha, Hindi commentary by Pandit kashinath Shashtri and Dr. Gorakha Nath Chaturvedi, "Ayurved- Dipika" Commentary by Chakrapanidatta, edited by vaidya Yadavji- Trikamji Acharya, Chaukhamba orientalia.
2. Sushruta Samhita of Maharishi Sushruta, Hindi commentary and notes by Kaviraj Ambikadutta Shastri, 11th edition: 1998, Chaukhamba Sanskrit Sansthana.
3. Dravyaguna Vigyanam, by Acharya P. V. Sharma, reprint, 2005.
4. Kumar et al. (2018) Cinnamon:a spice with multifaceted benefits. Journal of ayurveda and integrated medicine.
5. Rao et al. (2019) Cinnamon: a review of its pharmacological and therapeutic properties. Journal of pharmacy and pharmacology.
6. Jiageng Guo et al. advances in pharmacological effect and mechanism of action of cinnamaldehyde. (Pubmed).
7. Xuan et al. effect of cinnamaldehyde on glucose metabolism and vessel function. (Pubmed).