CLOVE (syzygium aromaticum): Champion spice & A review of history with multiple uses

Gitanjali B.thore
Department of pharmacy ,yashodeep institute of pharmacy , ( pimpalgaon pandhari) Aurangabad,Maharashtra,India

Abstract:

Clove(syzygium aromaticum) is one of most valuable species that has been used for centuries as food preservative and for many medicinal properties .clove may be looked upon as a champion of all antioxidants known till date .the oxygen radical absorption capacity (ORAC) test is a scale developed by U.S. department of agriculture for comparing antioxidant activity.

The major part of the world’s consumption of the clove spice is in the home kitchens .However,commercial use of the clove is for the production of clove oil that contain active constutes ,which posses antioxidant , anti-fungal,anti-viral,antimicrobial,anti-diabetic,anti-inflammatory,anti-thrombic,anesthetic pain reliving and insect properties.Eugenol is the main constituent responsible for the medicinal properties of the clove bud.

Keywords: spice,volatile,lavang,syzygium aromaticum

Introduction: the symbol of dignity that is what “clove“ actually means .It is precious and valuable spice of the world .it is an unopened flower bud growing on a tree belonging to the family myrtaceae which is same as that of guavas ,clove(syzygium aromaticum,Eugenia aromaticum or Eugenia Caryophyllata)are the aromatic dried flowers bud,which are commonly used in biryanis,pickles, salads, and garam masala .the tree that creates the miracles of nature originated from the Moluccas Islands,actually knows as spice island .it is coomon product found in the spice rack around the world.[1]

Spices are the clove,aregano,mint,thyme and cinnamon,have been employed for centuries as food preservatives and as medicinal plants mainly due to its antioxidant and antimicrobial activities. Nowadays, many reports confirm the antibacterial, antifungal, antiviral, anticinogenic properties of spice plants. clove in particular has attracted the attention due to the patent antioxidant and antimicrobial activities standing out the other species.[2]

History:

Clove is an ancient spice, which is believed to be originated in the first century , before Christ. The first clue about clove’s fragrance was given by the ancient Chinese (207 B.C. to 220 A.D.) at that time, Chinese physician wrote that court visitors were required to hold clove in their mouth to prevent the emperor from visitors bad breath .

Clove were traded to Europe by Arabs in 4th century A.D. the origine and source of clove was a mystery . until the discovery of Indonesia or Moluccas Island , by portuguese,in 16th century . In 17th century A.D., clove were established in India by East India company .
In European countries, there is tradition to make "pomanders" by studding arrangements with clove buds and to hang them around the homes, during Christmas, for decoration purpose and to spread fragrance [3].

**Pharmacological Activities:**

**Anti-microbial activity**

Clove represents one of the mother nature’s premire antiseptic. Clove oil and its main component Eugenol show considerable antifungal activity against candida, Aspergellius and dermatophyte species. It also shows activity against clinically relevant fungi including fluconazole resistatant strains [4].

**Anti-viral activity**

Clove is a potent antiviral agent. Eugenia isolated from clove buds showed antiviral activity against Herpes simpley virus at a concentration of 10 ug /ml [5].

**Anti-diabetic activity**

Clove extract acts like insulin in hepatocytes and hepatoma cells by reducing phosphoenaolpyruvate carboxylcinase (PEPCK) and glucose 6-phosphatase (G6pase) expression. A more global analysis of gene expression by DNA microarry analysis revealed that clove and insulin regulated the expression of many of the same genes in a similar manner [6].

**Common names:** cloves, caropyllus, clovos, caryophyllus,

**Botanical names:** Eugenia caryphyllus, syzygium aromaticum

**Names of Indian language:**

Sanskrit: Bhadrasriya, Devakusuma, Devapuspa, Haricanda nda, Lavangam, Lavanga, Lavangaka

Hindi: Laung, laumg, lavang

Malayalam: Grampu, karampu, karayampu

Marathi: lvang

Kannada: lavanga, Devakusuma, krambu

Tamil: kirampu, liavankam, kirramby

Telgu: Devakusumamu, lavagalu,

Bengali: Lavanga

Gujrati: lavang

Punjabi: laung

Oriya: labanga

Urdu: laung, loung

**Anti-stress activity**

The clove extract reduced the development of cold restraint induced gastric ulcers and prevented the biochemical changes induced by sound stress such as elevated plasma levels of aspartate aminotransferase ,alanine aminotransferase, alkaline phosphatase, glucose, cholesterol and corticosterone, clove extract was also effective in increasing the latency of anoxic stress induced convulsions in mice [7].

**USES**

**Medicinal uses**

Clove is uses as an anti-inflammatory agent, due to its high content of flavonoids, froma therapists use pure clove oil to cure the symptoms of rheumatism and arthritis.

Clove is used as carminative, to increase hydrochloride acid in the stomach and to improve peristalsis apply the paste of clove powder in honey to treat acne paste of clove powder in water promotes faster healing of cuts and bites.

Clove oil is effective in curing athlete's food and nail fungus clove oil stimulate blood flow and circulation making it useful for the people having cold extremities [8].

Clove is known to process antibacterial properties and is used in various dental creams, tooth pastes, mouth washes, and throat sprays to clense bacteria. It is also used to relieve pain from sore gums and improves overall dental health [9].

**Veterinary uses**

Clove is used as part of larger herbal formula to treat bites that are retaining pups.

The clove oil has been used to treat foreign matter in dog and cats ears and as a painkiller to treat tooth pain peppermint tea with a sprinkle of cloves and ginger has been used to treat vomiting in dogs.

**Culinary uses**

Dried cloves are the key ingredient in indian masala tea. Clove is often used to flavour meat products, pasties, cookies, candies, chewing gum, spiced fruits, hot spiced drinks, chocolate drinks, wines, and liqueurs, pudding, sandwich, cakes, and pickles.
Miscellaneous uses

Clove is used to flavour pharmaceutics clove oil is used to flavour tooth paste the leaf oil is used to import fragrance to perfumes and soaps

Conclusion

Clove may be looked as upon as the champion of all the antioxidant known till date .A drop of clove oil is 400 times more powerfull as an anti-oxidant than wolf berries or blueberries clove is medicinally powerful herb with a solid traditional heritage and histroy .clove has physical,mental and emotional health benefits clove posses antioxidant ,anti-fungal ,anti-viral,anti-microbial,anti-diabetic,anti-inflammatory,antithrombotic,anesthetic,Eugenol is the main constituent responsible for the medicinal properties for clove bud .clove is most imported spice of the word,as judged from the world trade

Home remedies using clove

Preesing a clove bud between the jaws ,at the site of aching tooth eases the pain

Apply clove oil in the cavity of decayed tooth .this would reduce the pain and help to ameliorate infection to remove bad breath chew clove buds

Prepare a decoction by boiling 5-6 cloves in 30 ml of water .take decoction of clove with honey . three a day as expectorant ,chewing a clove with salt also relives coughing

Suck a clove bud to obtain relief from hyperacidity

Reference

1.Parle milind and khanna deepa,A champion spice .International journal of research in Ayurveda & pharmacy ,2 (1) jan-feb 2011 47-54


4.pinto E, valer-silva, cavaleiro C,salgueiro E,Antifungal activity of clove essential oil from syzygium aromaticum on candida aspergillus and dermatophyte species.2009;58:1454-1462


