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Therapeutic Uses of Peppermint –A Review

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Abstract:

Peppermint (*Mentha piperita*, also known as *M. balsamea* Willd), is a hybrid mint, a cross between watermint and spearmint. The plant, indigenous to Europe and the Middle East, is now widespread in cultivation in many regions of the world. It is found wild occasionally with its parent species. The concentrated oil of peppermint has a high menthol content. The oil also contains menthone and menthyl esters, particularly menthyl acetate. Dried peppermint typically has volatile oil containing menthol, menthone, menthyl acetate, menthofuran and 1,8-cineol. Peppermint oil also contains small amounts of many additional compounds including limonene, pulegone, caryophyllene and pinene. According to the German Commission E monographs, peppermint oil (as well as peppermint leaf) has been used internally as an antispasmodic (upper gastrointestinal tract and bile ducts) and to treat irritable bowel syndrome, catarrh of the respiratory tract, and inflammation of the oral mucosa. Externally, peppermint oil has been used for myalgia and neuralgia. According to Commission E, peppermint oil may also act as a carminative, cholagogue, antibacterial, and secretolytic, and it has a cooling action. Enteric-coated peppermint oil capsules (Colpermin) have been used as an orally administered antispasmodic premedication in colonoscopy.

Key Words: Mentha piperita, peppermint, menthone.

INTRODUCTION:

Peppermint or mentha piperta is a common herb that is grown in Europe and north America. The oil of ppepermint has been used for various purposes since time imemoriable, to treat headache, common cold, neuralgia etc. This review focuses on the antispasmodic effects of peppermint oil. Peppermint oil has a fresh, sharp, menthol smell, is clear to pale yellow in color and watery in viscosity. India is world's largest producer and exporter of mint oil. Mint oil and its constituents and derivatives are used in food, pharmaceutical and perfumery and flavouring industry. Its main constituent, menthol, is used in the manufacture of lozenges, toothpastes, pain balms, cold balms, Dabur Pudin Hara, etc. The basic raw material for mint oil is leaves of a plant Mentha arvensis. The oil is used for treating certain stomach disorders like indigestion, gas problem, acidity, etc. It is the main ingredient of ayurvedic medicines like Daburs 'Pudin Hara'. The oil is a natural source of menthol, which is the main ingredient of cough drops and ointments like Vicks Vaporub, etc. The capsules were found beneficial in reducing total procedure time, reducing colonic spasm, increasing endoscopist satisfaction and decreasing pain in patients during colonoscopy. Peppermint is taken internally as a tea, tincture, oil, or extract, and applied externally as a rub or liniment. It s often used in pediatric patients for treating abdominal pain, irritable bowel syndrome, nausea and symptomatic relief of coughs and colds.(20)

Historical and Popular Uses Peppermint's Latin name, Mentha piperita, comes from the Greek Mintha, the name of a mythical nymph thought to have metamorphosed into the plant, and the Latin piper, meaning pepper. It is one of the world's oldest medicinal herbs, and is used in both Eastern and Western traditions. Ancient Greek, Roman, and Egyptian cultures used the herb in cooking and medicine. Peppermint is currently one of the most economically

important aromatic and medicinal crops produced in the U.S. The world production of peppermint oil is about 8000 tons per year (1). Peppermint leaf and oil are used for folk medicine, as flavoring agents, and in cosmetic and pharmaceutical products throughout the world (2). Peppermint oil is the most extensively used of all the volatile oils (3). Herbalists consider peppermint an antiseptic, antipruritic, antispasmodic, antiemetic, carminative, diaphoretic, mild bitter, analgesic, anticatarrhal, antimicrobial, rubefacient, stimulant, and emmenagogue(4),(5). Peppermint oil vapor was used as an inhalant for respiratory congestion. Peppermint oil infused tea was a remedy used to treat coughs, bronchitis, and inflammation of the oral mucosa and throat. This method is still put to use. It has traditionally been used to treat a variety of digestive complaints such as colic in infants, flatulence, diarrhea, indigestion, nausea and vomiting, morning sickness and anorexia, and as a spasmolytic to reduce gas and cramping. Peppermint oil is currently used to treat irritable bowel syndrome, Crohn's disease, ulcerative colitis, gallbladder and biliary tract disorders, and liver complaints(6)(7). Peppermint oil is used to relieve menstrual cramps(8). Peppermint oil is used externally for neuralgia, myalgia, headaches, migraines and chicken pox(5)(6).

CHEMICAL CONSTITUENTS

Menthol is the primary component of the essential oil of peppermint and is mostly responsible for the agents anti spasmolytic effects. Various constituents of peppermint oil are limonene (1.0-5.0%), cineole (3.5-14.0%), menthone (14.0-32.0%), menthofuran (1.0 -9.0%), isomenthone (1.5-10.0%), menthyl acetate (2.8-10.0%), isopulegol (0.2%), menthol (55.0%), pulegone (4.0%) and carvone (max. 1.0%).