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Indian kitchen is the top quality of medicine store

[1]Mr. Hemant S. Mali, [2]Ms. Shital K. Patil,

[1]Assistant Professor of PQA Department at Ahinsa Institute of Pharmacy Dondaicha, Shindkheda, Dhule(M.S).
[2]Research Scholar of Pharmacognosy at RCPIPER Shirpur, Dhule (M.S).

Abstract :

The Latin word "spec" is the basis of the ancient French word "spices," which is where the word spices originates. The identical scenario root provides rise to the word genus. For thousands of years, individuals with specialised expertise and passion have utilised spices to enhance the quality of food [1]. Spice-producing plants thrive in a variety of climates. Due to its diverse climate, India is the world's largest generator of species.A dried out plant even herb's seed, fruit, root, bark, or blossom can all be considered a spice. It is applied to improve the colour and flavour. Since ancient times, spices have been employed in Indian cooking to meet bodily needs [2]. Spices are utilised in cosmetics and fragrances in addition to being flavouring and colouring agents [1]. Spices are referred to as functional foods because of their pharmacological and physiological properties [1]. In accordance with the Indian medical system known as ayurveda, they maintain the human body in a healthy state and treat illnesses. The portion of the plant that is used determines the spice's therapeutic efficacy. In Ayurveda, using a certain plant portion is advised for certain conditions.In accordance with the Indian medical system known as ayurveda, they maintain the human body in a healthy state and treat illnesses. The portion of the plant that is used determines the spice's therapeutic efficacy. For certain illnesses, Ayurveda advises using a certain plant portion [3]. Spices are referred to as functional foods because of their dual pharmacological and physiological properties [1]. In accordance with the Indian medical system known as ayurveda, they maintain the human body in a healthy state and treat illnesses. The portion of the plant that is used determines the spice's therapeutic efficacy. In Ayurveda, certain plant parts are used to treat specific illnesses [3]. Ajwain, Anise, Asafoetida, Bay leaves, Cardamom, Chilli, Cinnamon, Cloves, Coriander leaves, Coriander seeds, Cumin, Curry leaves, Fennel, Fenugreek, Garlic, Ginger, Honey, Jaggery, Kapok buds, Mint, Mustard seeds, Nigella saliva, Onion, Pepper, Sesame, Tamarind, and Turmeric are a few of the spices that are frequently used in Indian cooking

Keywords:

Indian kitchen, Spices, Ayurvedic remedies, Drugs of alternate systems, Home remedies

I. INTRODUCTION

II. A kitchen is a room, or a section of a room, used for food preparation and cooking in a home. Various culinary products used in meal preparation are kept in the kitchen Depending on local eating customs, the edibles kept in the kitchen may differ from one location to another. A number of spices are kept in the Indian kitchen along with the main nutritional ingredients. They are used to give food products style and fragrance. They are used as medicines to treat a range of illnesses and conditions in addition to being coloring and flavoring ingredients. The Latin word "spec" is the source of the ancient French word "spice," which is where the term "spice" originates. The same root also gives rise to the word species. People with specialized expertise and interest have been using spices to enhance the quality of food for thousands of years [1]. Spice-producing plants thrive in a variety of climates. Due to its diverse climate, India is the world's greatest generator of species. A dried seed, fruit, root, bark, or flower of a plant or herb can all be considered a spice. It is applied to improve the color and flavor. Spices are employed in Indian food from the ancient period so that they suit the body needs [2] The same root also gives rise to the word species. People with specialized expertise and interest have been using spices to enhance the quality of food for thousands of years [1]. Spice-producing plants thrive in a variety of climates. Due to its diverse climate, India is the world's greatest generator of species. A dried seed, fruit, root, bark, or flower of a plant or herb can all be considered a spice. It is applied to improve the color and flavor. Spices are employed in Indian food from the ancient period so that they suit the body needs [2] Indian kitchen also stores nutritive materials like honey and ghee which also have medicinal importance Ayurveda. Cow ghee is called as Ayurvedic gold in some kinds of literature. Some of the Spices which are widely used in Indian kitchen are Ajwain, Anise, Asafoetida, Bay leaves, Cardamom, Chilli, Cinnamon, Cloves, Coriander leaves, Coriander seeds, Cumin, Curry leaves, Fennel, Fenugreek, Garlic, Ginger, Honey, Jaggery, Kapok buds, Mint, Mustard seeds, Nigella saliva, Onion, Pepper, Sesame, Tamarind, Turmeric. This work aims to review the nutritional and medicinal benefits of traditional spices mostly used in Indian kitchen.

III. DESCRIPTION

1) Ajwain : It is a member of the Apiaceae family and is known scientifically as Trachyspermum ammi [4]. When making bread-like samosa shells, parathas (flaky flatbreads), and rotis, it is particularly preferred in Indian kitchens. Additionally, it is used to temper dals and pakoras and to season potato dishes. These are regarded as superfoods that are high in lipids, proteins, and carbs. They also include minerals, oil, and a lot of fibre [4]. Calcium, potassium, sodium, phosphorus, thiamine, iron, and niacin are also included.

Fig 1; Ajwain (Trachyspermum ammi)

2) **Anise**

It is a member of the Apiaceae family and is known botanically as Pimpinella anisum [5]. Anise is a necessary spice while making biryani and other spicy dishes in the Indian subcontinent. It is also believed to improve the flavour of meat in Indian cookery. Confectioners use it in place of sweeteners. It adds a sweetened flavour and mixes in nicely with the other ingredients. It can be used whole or as a spice powder. This is exceptionally low in salt, cholesterol, and saturated fat. In addition, it is a very good source of iron, calcium, magnesium, potassium, vitamin C, and dietary fibre. Additionally, it contains manganese, copper, zinc, and phosphorus [5].

Fig 2 :Anise (Pimpinella anisum)

3) **Asafoetida**

The Umbelliferae family includes Ferula asafetida [6]. In India, asafoetida is frequently added in savoury foods to enhance their flavour by simulating the flavours of meat, eggs, onions, and garlic. It is an essential component of Indian food and is frequently combined with turmeric in a range of vegetable and lentil dishes, including dal [6]. Iron, calcium, carbohydrate, dietary fibre, protein, magnesium, phosphorus, zinc, copper, manganese, riboflavin, and niacin are the general components of asafoetida.

Fig 3 : Asafoetida (Pimpinella anisum)

4) **Bay leav es**

Cinnamomum tamala, the scientific name for Indian bay leaf, is a member of the Lauraceae family [7]. The most common uses for this spice are in rice dishes like biryani and as a component in hot food preparation products. Vitamins A, C, iron, potassium, magnesium, carbs, protein, fat, fibre, folates, niacin, pyridoxine, riboflavin, sodium, copper, manganese, phosphorus, selenium, and zinc are all abundant in these foods.

Fig 4. Bay leaves (cinnamomum tamala)

5) **Cardamom**

It is a member of the Zingiberaceae family and is known scientifically as Elettaria cardamomum [8]. [8] It is referred to be the queen of spices. In many different cuisines, cardamom's potent flavour and aroma go well with both savoury and sweet meals. If used excessively, it will soon overshadow a dish. Vitamins A, C, iron, potassium, calcium, magnesium, fibre, carbs, protein, fat, folates, niacin, pyridoxine, riboflavin, sodium, copper, manganese, phosphorus, selenium, and zinc are all abundant in these foods.

Fig 5. Cardamom (elettaria cardamomum)

6) **Chilli**

It is scientifically known as Capsicum frutescent and is a member of the Solanaceae family [9]. There is chilli in almost every Indian meal. Chilli is utilised as a flavouring and maybe a foundational ingredient in all Indian cooking, even if the dish isn't spicy. There are different types, even though it will seem general [9]. In addition, India alone is home to several species of chiles. Vitamin C, iron, potassium, calcium, magnesium, carbs, protein, fat, fibre, folates, niacin, pyridoxine, riboflavin, sodium, copper, manganese, phosphorus, selenium, zinc, and anti-ophthalmic factor are all abundant in these.

Fig 6.Chilli (Capsicum frutescens)

7) **Cinnamon**

Cinnamomum zelanicum Blume, a member of the Lauraceae family, is its scientific name [10]. One common spice in Indian cooking is cinnamon. While the curry is cooking, you can add powdered cinnamon. By adding little pieces of cinnamon, the cook can enhance the flavour of the cooking oil even more. With its toasty, sweet flavour, cinnamon is also a popular spice used in desserts. It contains calcium, iron, fat, potassium, carbs, fibre, protein, vitamin A, vitamin B6, and magnesium.

Fig 7. Cinnamon (Cinnamomum zeylanicum)

8) **Cloves**

Syzygium aromaticum is its scientific name, and it is a member of the Myrtaceae family [11]. A key component of several dry masala powders used in Indian cooking, including Garam Masala, are cloves. Many cuisines use them whole, and they are also cooked with other whole spices (khada masala). Fat, sodium, carbs, fibre, protein, calcium, iron, and potassium are all present.

Fig 8. Clove syygium aromaticum

9) **Coriander leaves**

Coriandrum sativum is its scientific name, and it is a member of the Umbelliferae family [12]. Typically, they are used in many Thai and Asian recipes. The smell of coriander leaves is strong. They even contain fragrant green leaves that are primarily utilised as food garnishes and flavours. The leaves, dried seeds, and powder of this herb, which is related to cilantro, are used extensively in Indian cooking. It contains calcium, iron, potassium, fibre, protein, fat, salt, and carbs..

Fig 9. Coriander leaves (corinadrum sativum)

10) **Coriander seeds**

The seeds are known as Dhaniya in Indian cooking and are a crucial component of the spices. The seeds, which have a fragrant taste, can be found both ground and dried [13]. Fat, salt, carbs, fibre, protein, calcium, iron, and potassium are among its nutritional components.

Fig 10. Coriander seeds

11) **Cow ghe**

Ghee is a unique fat to use in cooking for a variety of reasons. It is a wonderful source of fat [14] for people on low diets or with food allergies because it is free of casein and lactose. Ghee, however, has a distinct nutty flavour that adds more flavour to food than butter. It consists of fat, cholesterol, and vitamin A.

Fig 11.Cow ghee

12) **Cumin**

According to science, it is a member of the Umbelliferae family and is known as Cuminumcyminum [15]. In order to give Indian cuisine a distinctive smokey taste, cumin is frequently used whole and in spice blends [15]. It was well-known for its strong scent and distinctive ridged brown seeds. Fat, sodium, potassium, carbs, fibre, proteins, calcium, iron, vitamin B6, magnesium, and vitamins A and C are all present.

Fig 12. Cumin (cuminum cyminum)

13) **Curry Leave**

It is a member of the Rutaceae family and is known scientifically as Murraya koenigii [16].The cookery of South India uses these fragrant herbs. Curry leaves, which become soft when cooked, are used to spice dals, rice, chutneys, soups, and stews. Curry leaves should preferably be fried in oil to extract their flavours. It contains calcium, iron, folate, riboflavin, calcium, vitamin A, magnesium, protein, fat, carbs, vitamin D, thiamine, zinc, and vitamin B6.

Fig 13. Curry leaves (murraya koenigii)

14) **Fennel**

It is a member of the Umbelliferae family and is known scientifically as Foeniculum vulgare [17]. Indian cuisine makes heavy use of fennel. Although it is primarily used as seeds, some recipes do require the seeds to be roasted and ground into a powder. Chewing on them after meals is a common practice in India. It helps with digestion and serves as a herbal mouth freshener. They aid in the relief of gas, cramps, acid reflux, and numerous other digestive system disorders [17]. In terms of nutrition, it contains iron, magnesium, calcium, vitamin C, fibre, protein, sodium, potassium, and carbs.

Fig 14. Fennel (foeniculum vulgare)

15) Fenugreek

Foeniculum vulgare is its scientific name, and it is a member of the Umbelliferae family [17]. A common ingredient in Indian cookery is fennel. Some recipes do ask for the seeds to be roasted and ground into a powder, even though they are mostly utilised as seeds. As a herbal tongue freshener and to help with digestion after a heavy meal, they are commonly chewed throughout India. Among many other digestive system disorders, they aid in the relief of gas, cramps, and acid reflux [17]. It is a good source of iron, magnesium, calcium, vitamin C, fibre, protein, potassium, sodium, and potassium.

Fig 15. Fenugreek (trigonella foenum graecum)

16) Garlic

Known by its botanical name, Allium sativum, it is a member of thefamily Amaryllidaceae [19]. Garlic is an essential ingredient that enhances the flavour of many Indian foods and elevates simple recipes. Garlic, roasted or fried, has an enticing scent. Any food, whether vegetarian or not, benefits from its overall flavour and taste. In recipes like biryani and chicken meals, it is a necessary element. Folate, vitamin C, calcium, iron, magnesium, manganese, phosphorus, potassium, sodium, zinc, and vitamins B1, B2, B3, and B6 are all abundant in garlic [19].

Fig 16. Garlic (allium sativum)

17) Ginger

It is a member of the family of Zingiberaceae and is known by its botanical name, Zingiber officinale [20]. In Indian cooking, ginger is used in many recipes. Its primary use in cuisine is as a spice. It has a wonderful blend of flavour and goodness. Pickles, chutneys, and vegetarian recipes all employ it. For curries that contain meat or chicken, it is pounded into a paste or coarsely minced. Iron, potassium, vitamin C, magnesium, phosphorus, zinc, folate, calcium, and vitamins B3 and B6 are among the many vitamins it contains [20].

Fig 17. Ginger (Zingiber officinale)

18) Honey

The honeybee (Apis mellifera), a member of the Apidae family, produces honey naturally from the nectar of flowers [21]. One of the most prized natural things that humanity has known from the beginning of time is honey. One of the foods most frequently utilised in Indian kitchens is honey. It is the oldest and greatest confection with a number of health advantages. It serves as a substitute for sugar. used in baking, cooking, and dessert preparation. It is devoid of fibre, fat, and protein. Fructose, glucose, maltose, and sucrose make up the majority of its sugar content [21]. One spoonful of honey contains nearly 64 calories. Iron, potassium, and total carbs are all present.

Fig 18. Honey

19) Kapok buds

The plant, Ceiba pentandra, is a member of the Malvaceae family [23]. It is used to improve the flavour and aroma of food during cooking. It has a strong smell. In order to fully extract its flavour, it is nearly usually cooked in oil before use. A necessary spice for biryani and other subcontinental masala dishes is kapok buds. Vitamin A, C, and E are among the vitamins found in these. In addition to ash, fibre, calcium, and iron, it also contains proteins, carbs, and fat. It has potassium and sodium as well.

Fig 19. Kapok buds (ceiba pentandra)

20) Mint

Mentha piperita is the botanical name for this member of the Lamiaceae family [24]. Mint is used as dried leaves, paste, or fresh leaves. It is frequently used in Indian cookery for tea, chutneys, salads, and sauces. Most often, mint is used as a garnish for sweets, lassie, and biryanis. Mint is one culinary herb that gives anything you use it in, from summer drinks to Indian curries or chutneys, an added burst of freshness. It is an amazing source of vitamin C, copper, and manganese. In addition, it contains minerals including calcium, iron, magnesium, and manganese as well as vitamins A, B-6, C, E, and K, beta carotene, folate, and riboflavin.

Fig 21. Mint (mentha)

21) Mustard seeds

The annual plant Brassica nigra, sometimes known as black mustard, is a member of the Brassicaceae family and is cultivated for its dark brown or black seeds, which are typically used as a spice [25]. They are used more as a condiment than a foundation flavour in many Indian dishes; when cooked in a little oil with curry leaves, they enliven a rice or lentil dish (a match made in heaven). When ground mustard is steeped in liquid, the taste develops and the strong components are brought out. It is typically used in soups, salad dressings, spice rubs, and to make creamy sauces like macaroni and cheese more acidic. It is primarily composed of selenium and has a high magnesium content. Iron, manganese, and phosphorus are also included. It has total fat as well.

Fig 22. Mustard seeds (brassica nigra)

22) Nigella saliva

Nigella saliva, also known as black caraway, nigella, kalojeera, kalonji, or kalanji, is an annual flowering plant that belongs to the Ranunculaceae family [26]. The dry-roasted nigella seeds give vegetables, legumes, and curries a taste boost. The black seeds have a bitterness similar to mustard seeds and resemble a blend of onions, black pepper, and oregano. Nigella seeds are tiny black seeds with a strong flavour that spice up Indian curries and other meals. Protein, fat, moisture, ash, and total carbohydrates make up its composition. The amount of fat and ash was higher than what was reported in the literature.

Fig 22. Nigella sativa

23) **Onion**

Allium cepa, which is a member of the Amaryllidaceae family, is its scientific name [27]. Especially in Indian cooking, where onions are the first ingredient in practically every savoury dish. They can be thinly sliced, diced into cubes, or processed into a paste. They serve as the foundation for a variety of dishes, including stir-fries, biryanis, dosa fillings, samosas, parathas, and more. We Indians love a little spice. They adore the campfire meal and subsequent ass-up routine. The dish pairs well with onions, which add a powerful flavour boost. They contain quercetin, a flavonoid. They have a high vitamin C concentration, no fat, and little sodium. There is an abundance of folic acid and dietary fibre. Moreover it. Quercetin is a flavonoid that they contain. They have no fat, little sodium, and a lot of vitamin C. Both folic acid and dietary fibre are abundant. It also contains calcium, iron, and high-quality protein (measured by the ratio of milligrammes of amino acids to grammes of protein).

Fig 23. Onion (allium cepa)

24) pepper

The flowering vine known as black pepper, or Piper nigrum in scientific parlance, is a member of the Piperaceae family and was grown for its fruit [28]. To add taste and spice to meats, seafood, vegetables, salad dressings, soups, stir-fries, pasta, and other

dishes, black pepper is used in Indian cooking. Additionally, you may add a pinch of black pepper to fruit, avocado toast, scrambled eggs, and dipping sauces to add a little spiciness. It has important vitamins like A, E, and K as well as minerals like calcium, copper, iron, magnesium, manganese, phosphorus, and zinc.

Fig 24. Pepper (piper nigrum)

25) Sesame

The upright annual plant of the Pedaliaceae family, known scientifically as sesame (Sesamum indicum) or benne, has been cultivated since ancient times for its seeds, which are used as food and flavouring and from which a valuable oil is derived [29]. These seeds are a popular component used widely in Indian cookery because of their sweet flavour and nutty bite. They are used to extract sesame oil and come in a variety of colours, including black, white, and brown. In South Indian cooking, sesame oil is typically used as a lubricant, preservative, taste enhancer, and tempering agent. Sesame oil is a reliable substitute for baking because it is almost odourless and tasteless. Also, it contains several nutrients that are essential for immune system functioning such as zinc, selenium, copper, iron, vitamin B6, and vitamin E.

Fig 25.me (sesamum indicum

26) Tamarind

Tamarindus indica is its scientific name, and it is a member of the Fabaceae family [30]. Similar to how lemon juice is popular in Western culture, tamarind pulp concentrate is used as a flavouring in East Indian and Middle Eastern cuisine. It is used to season foods with strong flavours, such pickled fish, curries, and chutneys. Tamarind is also used to manufacture a sweet syrup that adds flavour to soft drinks. In addition, it has one gramme of fat, three grammes of protein, and six grammes of fibre. It provides 287 calories in total, about all of which come from sugar. A cup of tamarind really has 69 grammes of sugar, or 17.5 teaspoons of carbohydrates, in just one serving.

Fig 26. Tamarind (tamarindus indica)

27) Turmeric

The ginger family, Zingiberaceae, includes the flowering plant turmeric (Curcuma longa), whose roots are used in cooking [31].

A pinch of turmeric is typically a common component in all Indian recipes. Turmeric is regarded as a medicinal spice in India. In most parts of Southern Asia, it is used to improve the colour, flavour, and aroma of cuisine. 29 calories, almost one gramme of protein, two grammes of fibre, and six grammes of carbs are found in one tablespoon of ground turmeric. Additionally, it contains minerals including potassium, phosphorus, and manganese. Magical nutrients can also be found in turmeric.

Fig 27. Turmeric (curcuma longa)

Table 1 : Ingredients and their therapeutic applications

S. No	Ingredients	Medicinal uses
1.	Ajwain [32]	Antibacterial, Antiepileptic activity, Antifilarial, Antifungal, Antihelmenthic, Antinociceptive activity, Antioxidant, Antiviral activity
2.	Anise [33]	Anticonvulsant, Antifungal, Antioxidant, Antimicrobial, Antiviral
3.	Asafoetida [6]	Anticancer, Antidiabetic, Antihypercholestremic activity, Antioxidant, Gene expression, GI effects, Hepatoprotective, Hypotensive, Treat hypersensitivity reactions,Vasodilation, Women ailments
4.	Bay leaves [34]	Anti diabetic, Anti oxidant, HMG Co A reductase inhibitor, Hypolipidemic, Radical scavenging
5.	Cardamom [35]	Anti cancer, Anti fungal, Anti mutagenic, Antioxidant, Blood pressure lowering, Diuretic , Fibrinolysis enhancing, Gut modulatory, Sedative
6.	Chilli [9]	Anti microbial
7.	Cinnamon [36]	Anti inflammatory, Anti-cancer activity, Anti-diabetic, Antifungal and Antibacterial Activity, Antihypertensive and Vaso relaxant Effects
8.	Clove [37]	Antifungal properties, Anti-inflammatory activity, Antimicrobial activity, Antiviral activity, Immunomodulatory effects
9.	Coriander leaves [38]	Anti anxiety, Anti bacterial, Anti Hypertensive, Antioxidant, Disease modifying, Memory enhancing, Neuroprotective
10.	Coriander seeds [39]	Anti diabetic, Atherosclerotic, Cardio protective, Diuretic, Hypocholestrimic, Lowers BP, Sedative and hypnotic
11.	Cow Ghee [40]	Based on Lipid Composition, Protective effect against carcinogen induced mammary cancer
12.	Cumin [41]	Anti-diarrhoeal, Antimicrobial Property, Antioxidant Capacity and Cytotoxicity, Chemo preventive Effects, Enhancement of digestive enzymatic activity
13.	Curry leaves [42]	Anti bacterial, Anti diabetic, Anti fungal, Anti oxidant, Cytotoxic, Hypolipidemic
14.	Fennel [43]	Aids digestion, Anti atherogenic, Anti bacterial, Anti hirsutism, Anti inflammatory, Anti oxidant, Dysmenorrhoea, Hepato protective, Hypolipidemic, Increase oestrogen progesterone prolactin in female

Table 2 : Kitchen Ingredients and Their Medical Applications

S. No	Ingredients	Medicinal uses
1.	Fenugreek [44]	Anti microbial, Antihypertensive, Antioxidant, Antiradical, Apoptosis, Dysmenorrhoea, Hair growth, Hepato protective, Hypocholestrimic, Renal protective
2.	Garlic [45]	Analgesic and anti-nociceptive activity, Antihypertensive, Anti-inflammatory, Antimycobacterial and Antibacterial activity, Anti-obesity, Antioxidants, Antiplatelet activity, Cancer chemo prevention, Cardiovascular benefits, Hepato protective, Immunomodulatory Effects
3.	Ginger [46]	Anti hypertensive activity, Anti microbial activity, Antifungal activity, Anti-oxidative stress effects, Anti-inflammatory effects, Anti-diabetic effects, Lipid lowering activity, Pain relief in primary dysmenorrhoea, Virucidal activity

4.	Honey [47]	Antibacterial, Anti-inflammatory and Anti-viral Agent, Antimicrobial Activity, Antioxidants, Apoptosis, Beneficial effects on body weight and blood lipids of diabetic patients, Wound healing properties
5.	Jaggery [22]	Cytoprotective and antioxidant activity
6.	Kapok buds [23]	Anti oxidant, Cytotoxic
7.	Mint [48]	Anti bacterial, Anti cancer, Anti fungal, Anti nociceptive, Anti spasmodic, Infantile colic, Neuralgia, Phytochemical, Radio protective
8.	Mustard seeds [49]	Antifungal Activity, Antimicrobial, Antioxidant
9.	Nigella saliva [50, 51, 52]	Antiatherogenic, Antibacterial activity, Antidepressant, Antidermatophyte activity, Antidiabetic Activity, Antifungal Activity, Antioxidant, Antipsoriatic activity and cytotoxicity, Antitumor activity, Bronchodilator, spasmolytic and calcium antagonist activities, Gastro protective activity, Hypoglycemic and Hypolipidemic Potential, Leishmanicidal & cytotoxic activities, Neuroprotective, On kidney damage, On Metabolic Syndrome in Menopausal Women
10.	Onion [53, 54]	Anti Cancer, Anti depressant, Anti diabetic, Anti microbial, Anti-Obesity, Antioxidant, Treatment of alopecia areata, Wound healing activity
11.	Pepper [55, 56]	Antibacterial activity, Antidepressant, Antidiarrhoeal effect, Anti-inflammatory & Antinociceptive, Antioxidant activity, Immunomodulatory and Anti-Cancer Activities, In Gastrointestinal Disorders, Lowers blood lipids, Treatment of airways disorders
12.	Sesame [57]	Antihypertensive, Antioxidative activity, Antinociceptive, Analgesic, Anti-pyretic and Anti-inflammatory activity,cardio protective, Hepato protective
13.	Tamarind [58]	Anthelmenthic, Anti-apoptotic effects, Anti-inflammatory & Analgesic activity, Antimicrobial Activity
14.	Turmeric [59]	Alzheimer's disease, Antibacterial activity, Antioxidant, anti-inflammatory, and antinociceptive, Cardio protective Chemo preventive activity, Eye diseases, Gastro protective, Neuroprotection, Osteoarthritis, Prevention of diabetic retinopathy

IV. CONCLUSION

All things considered, spices are diverse groups of both volatile and non-volatile basic food additives. The human body is protected by the many bio-functions of all the spices as well as their additive and synergistic effects. India naturally has a vast array of spices due to its diverse climate and topography. Spices have historically been incorporated into a holistic diet. They are directly in charge of giving food items its flavour, colour, aroma, and taste. As a result, they are an essential component of any Indian kitchen. However, traditional textbooks from ancient times also attribute several therapeutic characteristics and actions to the majority of these Indian spices. The medicinal and therapeutic properties of these spices have been given particular attention by the Indian medical system known as Ayurveda, and they have been thoroughly explained in the numerous Vedic books, which date back thousands of years. Many Indian spices have been used in everyday home life because of this traditional knowledge base and folklore that have been passed down from generation to generation. because they are often used in little amounts and have powerful tastes. Despite the fact that many spices, especially those derived from seeds, have high weight percentages of fat, protein, and carbohydrates, spices often have little calories per meal. But when used in big amounts, spices can also provide a significant amount of minerals and other micronutrients. Through experimental and clinical research, scientists have demonstrated the pharmacological and therapeutic effects of these distinct spices. Appetiser, digestive, carminative, analgesic, blood purifier, hepatoprotective, antipyretic, antidiabetic, hypolipidemic, antibacterial, anti-inflammatory, antioxidant, and other vital medicinal qualities are all present in many of these spices. They contain a wide range of naturally occurring phytochemicals with overlapping and complementary functions. These dietary spices' antioxidant activity indicates that, in addition to adding flavour to food, they may also have health advantages by preventing lipid peroxidation. The use of herbs and spices as a source of antioxidants to fight oxidation deserves further attention because oxidative processes in the body are strongly linked to a number of metabolic diseases and age-related degenerative disorders..

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