



Why Blackseed Can Be The Cure for All Illnesses Except Death

Abstract

The use of plants to prevent and treat illness conditions, has been known since time immemorial. Blackseed has been used in different civilization around the world for centuries. The curative properties of blackseed were mentioned in the Bible and further elaborated on by Prophet Mohammed (PBUH) as “Hold on to the use of blackseed, as it has a remedy for every illness except death”. Extensive research conducted over the past century into the phytochemistry of blackseed, has identified many active ingredients, and confirmed its pharmacological action in the treatment of a vast range of illness conditions across the different systems of the body, including the prevention and treatment of cancer, and optimum functioning of the immune system. Furthermore, the Tibb philosophical principles highlights the ability of the body’s inherent self-healing capacity, known as Physis, and the intricate functioning of the human body, based on the temperamental and humoral theory. This paper emphasizes the importance of Physis, and its role in the maintenance and restoration of health with the regular intake of blackseed, highlighting why blackseed can be a cure for all illnesses except death.

Key words: Blackseed; Phytochemistry; Pharmacological action; Tibb philosophical principles

Introduction

Plants have been the source of medicine since time immemorial, and even today more than $\frac{3}{4}$ of communities in poverty-stricken areas rely on medicinal plants for their healthcare needs¹. There has been a growing interest in herbal medicine on a global scale, for their accessibility, low cost, and minimal side effects, as opposed to synthetic Western medication. Over centuries, more than 50 000 plants, including blackseed, have been used as a source of medicine². The recent health pandemics, which has reduced both life expectancy and the quality of life for many, has revived an interest in the effectivity of Blackseed.

History of Blackseed

Blackseed, also known as *Nigella Sativa* has been used to successfully keep people healthy for over 3000 years and is one of the earliest cultivated plants in human history³. Although its native to the Mediterranean area, it is also grown in Saudi Arabia, Syria, and the Middle East⁴. According to literature, the earliest archaeological evidence of blackseed dates back to ancient Egypt, as it was found in the Tomb of Tutankhamun⁵. However, the earliest written reference of blackseed is found in the Bible, in the book of Isaiah in the Old Testament. Black seeds are identified as the curative black cummin in the Bible and was referred to as 'ketza', a spice used for bread and cakes, while in old Latin it is known as 'Panacea' meaning "cure all"⁶.

In Islam, the Prophet Mohammed (PBUH) made specific statements on numerous medicinal plants, but emphatically emphasized on the curative powers of the blackseeds in the hadith stating, "Hold on to the use of Blackseed, as it has a remedy for all illnesses except death", thus the use of blackseed is recommended on a consistent basis in Tibb-e-Nabwi (Prophetic Medicine)^{1, 3, 7}.

Ancient and Traditional uses of Blackseed

Ancient scholars including, Hippocrates, Dioscorides and Ibn Sina all believed in blackseed for its preventative and curative powers. Hippocrates regarded the seeds of *Nigella Sativa* as beneficial and valuable in treating hepatic and digestive disorders. Dioscorides, a Greek physician used black seeds to treat headaches, nasal congestion, toothache, and intestinal parasites⁸. He also reported the use of black seeds as an emmenagogue, to increase lactation, while describing blackseed in his book 'De Materia Medica'. Ibn Sina described blackseed as the seed that stimulate the body's energy and helps recovery from fatigue and dispiritedness', in his famous book "The Canon of Medicine"³.

In Middle East folk medicine and Traditional Iranian medicine blackseed has been used as a natural remedy for many diseases including several respiratory, gastrointestinal, topical, inflammatory, and painful disorders^{9, 10}. While in Traditional Indian medicine black seeds was used to treat conditions such as hepatitis, diarrhoea, fever, cough, tapeworms and to enhance immunity⁶.

Research confirming the Pharmacological effectivity of Blackseed

Recognition of the historical use of blackseed over thousands of years, has initiated extensive research over the past century, on its pharmacological effectivity in the treatment of illness conditions across all bodily systems. In a research article published in Net Journals, it is mentioned that blackseed is the only plant on the face of the earth on which the highest number of studies have been carried out, with well over 600 peer-reviewed scientific articles published, of which 500 studies were conducted in different universities from 16 different countries and lists more than 129 diseases that are curable by blackseed

and its oil³. The research indicates that blackseed is an effective antimicrobial (antibacterial, antiviral, antifungal), antihypertensive, antidiabetic, anticancer, antiparasitic, anti-inflammatory, antioxidant, anti-infertility, anti-dyslipidemic, antihistaminic, anthelmintic, antiarthritic, and also has analgesic, spasmolytic, and bronchodilator actions. More significantly research has also confirmed positive pharmacological activity on various systems of the body including hepato-protective, renal-protective, neuro-protective, gastro-protective, nephron-protective, cardio-protective, and being immunomodulatory^{3,1,11}.

In 1996, the U.S. Food and Drug Administration (FDA) granted a patent for the use of the extracts of blackseed as an immune system stimulant. The patent was based on "a pharmaceutical composition containing an extract of the plant *Nigella sativa* for treating cancer, preventing the side effects of anticancer chemotherapy, and for increasing the immune functions in humans"³. According to research blackseed increases the ratio of helper T cells to suppressor T cells and increases the activity of natural killer cells, while stimulating interleukin-3 secretion by T cells, and thus has the ability to modulate the immune system¹².

Phytochemistry of Blackseed

Phytochemical analyses displayed the presence of over hundreds of phytoconstituents which include, amongst other actives, alkaloids, saponins, sterols, oils, vitamins, and minerals - but the composition of many of these have not been chemically recognized nor have been biologically verified. The nutritional phytochemistry of blackseed, reported from different sources revealed that blackseed contains 20.85% of protein, 31.94% of total carbohydrates, 38.20% of fats/oils, of which 26-34% are fixed oils, and 0.4%-2.5% essential oils, and 7.94% of fiber¹.

In keeping with the research trend over the past few centuries, where research has been conducted to identify the chemical structure of specific active ingredients in plants, for example, morphine, quinine, reserpine, and curcumin etc. - thymoquinone, a bioactive ingredient in blackseed, was identified in 1985. Extensive research has confirmed the effectivity of thymoquinone, against numerous types of cancers including leukaemia, liver colon, brain, breast etc. and also its effectivity in many cardiovascular disorders. Thymoquinone also has anti-inflammatory, analgesic, and antioxidant properties³. Whilst the research on only one of the active ingredients of blackseed highlights its healing ability, one can only speculate on the overall effect of the hundreds of active ingredients contained in blackseed.

Recent research has confirmed that blackseed contains 15 Amino acids of which 9 are Essential amino acids, needed by the human body for the many biochemical processes required in the preservation of

health. Essential amino acids refer to amino acids that cannot be synthesised by the human body and is thus required from the diet¹¹.

Institute's interpretation on the Phytochemistry of Blackseed

Being aware that most plants have numerous actives under the different categories, enabling them to be effective against many different illness conditions – e.g., garlic contains five (5) different categories of plant actives including flavonoids, alkaloids, saponins, tannins and glycosides which has proven benefits in patients suffering from hypertension, prevents stroke, lowers cholesterol, controls inflammation, counteracts infections and reduce tumours¹³.

Whilst blackseed has hundreds of different constituents, the composition of many of these have not been chemically recognised. The table below lists the number of actives that have been identified under the difference categories, and also includes the pharmacological activity of each category¹⁴.

Active Ingredients and Pharmacological activity of different Categories found in Blackseed

Category	Active ingredients	Pharmacological Activity
Alkaloids	Isoquinoline alkaloids: Nigellimine, Nigellimine N-oxide. Pyrazole alkaloids: Nigellidine, nigellicine ¹¹	Antiviral, Anti-cancer, Antibacterial, Anti-inflammatory ¹⁵
Essential oils	Aliphatic: Thymoquinone, p-cymene, α-pinene, dithymoquinone, thymohydroquinone, Carvacrol, carvone, limonene, 4-terpineol, citronellol, anethol ¹¹	antioxidant, anti-inflammatory, antitumour, anti-cancer, diuretic, antiarthritic, antifungal ^{16,17,3}
Flavonoids	Flavonoidal glycoside: Kaempferol 3-glucosyl galactosyl glucoside, quercetin 3-galactosyl glucoside, trigillin quercetin3-glucoside ¹¹	Antioxidants, hepatoprotective, Antibacterial, Anti-inflammatory, Anti-cancer, Antiviral ¹⁸
Glycosides	xylopyranosyl, rhamnopyranosyl, glucopyranose ¹	Involved in Lipid and steroid metabolism ^{19,1}
Phenolic Compounds	Acidic phenolics: Vanillic acid, hydroxybenzoic acid, syringic acid, p-cumaric acids ¹¹	Potent antioxidant, anti-cancer, Anticardiovascular disease, Antidiabetic activity, Immunomodulatory ²⁰
Saponins	Steroidal: Alpha hedrin. Triterpenes: Steryl glucosides, Acetylsteryl-glucoside ¹¹	Antibiotic, insecticidal, fungicidal, virucidal ²¹
Coumarin	Methoxy coumarin: 6-methoxy-coumarin. Hydroxy coumarin: 7-hydroxy-coumarin. Oxy coumarin: 7-oxy-coumarin ¹¹	anti-inflammatory, anticoagulant, antibacterial, antifungal, antiviral, anti-cancer, antihypertensive, antitubercular, anticonvulsant, antiadipogenic, antihyperglycemic, antioxidant, and neuroprotective ²²
Vitamins & Minerals	Calcium, iron, and potassium, phosphorus, zinc ¹¹	Vitamins and minerals important in metabolic and physiological processes ^{3,1}
Fixed oils	Unsaturated fatty acids: Oleic acid, Linoleic acid, dihomolinoleic acid, eicodadienoic acid, Saturated fatty acids: Palmitic acid, stearic acid ¹¹	Anti-inflammatory, Antibiotic, Antioxidant ²³
Steroids	Sitosterol, stigmasterol ²⁴	Cholesterol, coronary heart disease ²⁴ , Inflammation, Prostate (BHP), Anti-angiogenic, Anti-cancer

The many categories (together with the different active ingredients within each category), contained in blackseed, allows for a wide range of pharmacological activity. In addition to their active constituents, medicinal herbs, including blackseed, also contain numerous metabolic precursors in the form of primary constituents, such as carbohydrates, fats, and proteins, as well as secondary metabolites²⁵. The therapeutic benefits these collectively confer are unbelievably complex and pose formidable challenges to pharmacological research. Even with the technological advancements of today there is a limited understanding of how the bodies genetically programmed inbuilt wisdom that is, physis, operates²⁶.

Rationale underpinning How and Why Blackseed can be the Cure for All illnesses except Death

The rational underpinning the above is based on the philosophical principles of Tibb which include Temperament, Humours, Lifestyle Factors, Physis and the Principle of Cause and Effect.

Temperament

Temperament in human beings, is an amalgam of a person's physical, mental, emotional, and spiritual attributes, with each individual having a unique temperament which remains fixed throughout an individual's lifespan. Although each person is as unique as their fingerprint, Galen broadly categorized individuals into four temperamental types with respective qualities: Sanguinous (Hot & Moist); Phlegmatic (Cold & Moist); Bilious (Hot & Dry); and Melancholic (Cold & Dry)²⁷, with each individual having a dominant/sub-dominant temperamental combination with an ideal qualitative state. Identifying an individual's temperamental combination and qualitative state provides valuable insights into the predisposition of illness conditions as well as the maintenance of health with respect to lifestyle management^{28,29}.

Humours

Humours, also known as primary body fluids, are produced by the liver after the process of digestion and transformation of food and drink. Tibb philosophy recognizes that just as each person has a unique temperamental combination, each individual also has a unique humoral composition made up from the four humours: Sanguinous; Phlegmatic; Melancholic; and Bilious, also with respective qualities and an overall qualitative state. If this overall qualitative state of the humours is in harmony with the overall qualitative state of an individual's temperament, health will be maintained. Changes to this ideal humoral balance, occurs from the qualitative effects from Lifestyle Factors, especially food & drink resulting in signs and symptoms/illness conditions, associated with different humoral imbalances³⁰.

Lifestyle Factors

Tibb has identified Six Lifestyle Factors, which affect every individual, that can either be beneficial or harmful to health and well-being. These include Environmental Air and Breathing; Food and Drink; Sleep

and Wakefulness; Movement and Rest; Emotions and Feelings; and Elimination, where each of the Lifestyle Factors have specific qualities. Lifestyle factors influence humours by the qualities they exert – for example, weather is either hot or cold, foods such as ginger is heating, sleep is cooling, and physical exercise produces heat. As each individual has a unique temperament, with an ideal qualitative state, the 6 Lifestyle Factors, especially diet, has to be personalized to ensure that the overall qualitative state of the humours are the same as the ideal qualitative state of an individual's temperament. Optimal management of Lifestyle Factors are ultimately essential in the maintenance of health³¹.

Physis

Hippocrates described physis as “*vis medicatrix Natura*” or ‘*the ability of the body to heal itself*’³¹. Ultimately, the preservation and maintenance of health is dependent on the optimal functioning of Physis. Whilst an individual's temperament is fixed, humours are constantly changing from the qualitative effect of the Lifestyle Factors. Physis is responsible to restore balance between the qualities of the humours, to be the same as the overall qualitative state of the temperamental combination. Physis maintains, homeostasis, at a cellular/sub-cellular level, between all the organs and systems of the body, including the immune system, by constantly monitoring and adjusting the millions of biochemical and physiological pathways that are genetically designed. The optimal functioning of physis is vital for the maintenance of health and prevention of disease. Physis can thus be defined as the sum total of structural, functional, and psychological character of the human being. However, just as an individual's metabolism slows down with age, the efficiency of physis to restore homeostasis in the body becomes weaker from the approximate age of 40 onwards³².

The principles of Physis, Temperament, Humours, and Lifestyle Factors provides the foundation why Tibb is a “Science of Medicine” based on the principle of “Cause and Effect”.

Principle of Cause and Effect

In the Canon of medicine Ibn Sina lists four causes of illnesses a) Material cause – associated with *Humours*; b) Formal cause – associated with *Temperament*; c) Efficient cause – associated with *Lifestyle Factors*; and d) Final cause – associated with a cause that leads to other “causes”. A stroke can lead to paralysis, numbness, speech impediment, etc.

Ibn Sina also describes three conditions for a cause to have an effect a) Active power – for example, deadly bacteria/virus; b) Receptive power – weakened immune system; c) Prolonged contact – which affects the humoral balance leading to infection^{29,32}.

The above overview of the philosophical principles of Tibb and more particularly, the role of physis provides a comprehensive understanding of the rationale underpinning how blackseed can be the cure

for all illnesses except death. The hundreds of active ingredients and its pharmacological actions in blackseed, enables physis to maintain the ideal humoral balance, in relation to an individual's temperament in the maintenance and restoration of health. Based on the concept of synergy and the holistic approach of Tibb, the many active ingredients allow physis to select nutrients, and strengthen the body's internal constitution and physiological functions, including organ systems and immune modulation. The optimal humoral balance creates a perfect state of internal homeostasis, which ultimately allows the body to fight infection and prevent disease/or its progression.

Interpreting the wisdom behind the Prophetic Tradition

The Prophetic tradition on blackseed states:

"Hold onto the use of blackseed as it is a remedy for all illnesses except death"

Being aware of the role of physis in the maintenance and restoration of health and within the context of the words of the Prophetic tradition *"Hold onto the use of Blackseed"* can be interpreted that a daily intake of blackseed will provide physis with hundreds of active constituents having a wide range of pharmacological action across all systems of the body to keep a person healthy during an individual's lifespan. Taking blackseed regularly throughout one's lifespan should keep an individual well until the time of death.

Daily intake of blackseed

From the numerous research papers on the treatment of illness conditions with blackseed, the dose varied between 300mg or 500mg, (which is approximately ¼ teaspoon), whereas the blackseed oil was prescribed ½ to 1 teaspoon – both once or twice daily³.

An important consideration of consuming blackseed is being aware of the Hot & Dry qualitative effect of blackseed, in relation to an individual's temperament²⁸. For example, a person with a dominant/sub-dominant Bilious (Choleric) temperament which has a dominance of Hot & Dry qualities may have a negative effect - especially if taken on an empty stomach, whereas a person, with a Phlegmatic dominant/sub-dominant temperament having Cold & Moist qualities will not be affected by blackseed, even on an empty stomach. However, it is always best to take blackseed during meals, to avoid possible side-effects.

Another option, and being aware of the benefits of honey, is to have blackseed, finely crushed (to facilitate digestion and metabolism), mixed with honey in a ratio of 1 portion of blackseed to 1 ½ or 2 portions of honey.

From the above guidelines one can decide what will be most suitable and how often to take blackseed once or twice daily, depending on the age, temperament, illness condition/s including current medication, with the objective of assisting physis in the maintenance and restoration of health.

Conclusion

Being aware of the many active ingredients in blackseed and its extremely wide range of actions across all the systems of the body makes one realise why blackseed can be “a cure for all illnesses except death”. This research confirms and bears testimony to the divine guidance from God Almighty in the Bible and the Prophetic tradition of Muhammed (PBUH).

Within the context of the Principle of Cause and Effect, even though blackseed has hundreds of active ingredients to maintain and restore health, it needs to be remembered that ultimately health will only be maintained if the overall quality of the humours is in harmony with the ideal qualitative state of an individual's temperament - which is entirely dependent on the effective management of the Tibb Six Lifestyle Factors, especially diet. This will assist physis to control, adjust and monitor all the physiological and biochemical processes to maintain homeostasis, and hopefully prevent most chronic conditions, cancers and ensure optimum functioning of the immune system.

Finally, in accordance with the Prophetic tradition, “Holding onto the use of blackseed” - daily intake of blackseed will provide and make available the necessary active ingredients for physis to maintain and where necessary restore health. Thus, based on research, and the link between blackseed and physis, within the context of the Tibb principles, highlights why blackseed can be the cure for all illnesses except death.

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