Why blackseed can be the cure for all illnesses except death

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ABSTRACT

The use of plants to prevent and treat illnesses has been known since time immemorial. Blackseed has been used in different civilizations 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 illnesses 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 highlight 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.

Keywords: Blackseed, phytochemistry, pharmacological action, Tibb philosophical principles.

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INTRODUCTION

Plants have been the source of medicine since time immemorial, and even today more than ¾ of communities in poverty-stricken areas rely on medicinal plants for their healthcare needs (Ebrahim and Yimer, 2019). There has been a growing interest in herbal medicine on a global scale, for its accessibility, low cost, and minimal side effects, as opposed to synthetic Western medication. For centuries, more than 50000 plants, including blackseed, have been used as a source of medicine (Schippmann et al., 2002). The recent health pandemics which have reduced both life expectancy and the quality of life for many, have revived an interest in the effectiveness 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 history (Hussain and Hussain, 2016). Although it is native to the Mediterranean area, it is also grown in Saudi Arabia, Syria, and the Middle East (Assi et al., 2016). According to literature, the earliest archaeological evidence of blackseed dates back to ancient Egypt, as it was found in the Tomb of Tutankhamun (Sharma et al., 2009). 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 cumin in the Bible and were referred to as ‘ketza’, a spice used for bread and cakes, while in old Latin it is known as ‘Panacea’ meaning ‘cure all’ (Murli and Mathura, 2011).

In Islam, the Prophet Mohammed (PBUH) made specific statements on numerous medicinal plants but emphatically emphasized the curative powers of 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) (Ebrahim and Yimer, 2019; Hussain and Hussain, 2016; Areefa et al., 2020).
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 parasites (http://ayurvedicoll.com/tag/healthbenefits-of-black-cumin-seeds). 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 stimulates the body’s energy and helps recovery from fatigue and dispiritedness’, in his famous book “The Canon of Medicine” (Hussain and Hussain, 2016).

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 (Chaieb et al., 2011; Ghannadi et al., 2005). While in Traditional Indian medicine black seeds were used to treat conditions such as hepatitis, diarrhoea, fever, cough, tapeworms and to enhance immunity (Murli and Mathura, 2011).

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 effectiveness in the treatment of illness conditions across all bodily systems. In a research article published by Hussain and Hussain (2016), 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 oil. The research indicates that blackseed is an effective antimicrobial (antibacterial, antiviral, antifungal), antihypertensive, antidiabetic, anticancer, antiparasitic, anti-inflammatory, antioxidiant, anti-infectility, anti-dyslipidemic, antihistaminic, antihypertensive, antidiabetic, antiparasitic, anti-inflammatory, antioxidiant, anti-infectility, anti-dyslipidemic, antihistaminic, antihypertensive, and also has analgesic, spasmyolytic, 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 (Hussain and Hussain, 2016; Ebrahim and Yimer, 2019; Ahmad et al., 2021).

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" (Hussain and Hussain, 2016). 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 system (Kooti et al., 2016).

Phytochemistry of blackseed

Phytochemical analyses displayed the presence of hundreds of phytoconstituents which include, amongst other active 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 to 34% are fixed oils, and 0.4 to 2.5% essential oils, and 7.94% of fiber (Ebrahim and Yimer, 2019).

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 effectiveness of thymoquinone, against numerous types of cancers including leukaemia, liver, colon, brain, breast, etc. and also its effectiveness in many cardiovascular disorders. Thymoquinone also has anti-inflammatory, analgesic, and antioxidant properties (Hussain and Hussain, 2016). 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, 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 are thus required from the diet (Ahmad et al., 2021).

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 tumours (Bhikha and Glynn, 2019).

Whilst blackseed has hundreds of different constituents, the composition of many of these has not been chemically recognised. Table 1 lists the number of actives that have been identified under the different categories, and also includes the pharmacological activity of each category (Niu et al., 2020).

The many categories (together with the different active ingredients within each category), contained in blackseed, allow 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 metabolites (Craig, 1999). 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, operates (Chishti, 1991).

Table 1. Active ingredients and pharmacological activity of different categories found in blackseed.

<table>
<thead>
<tr>
<th>Category</th>
<th>Active ingredients</th>
<th>Pharmacological activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Essential oils</td>
<td>Aliphatic: Thymoquine, p-cymene, α-pinene, dithymoquinone, thymohydroquinone, Carvacrol, carvone, limonene, 4-terpineol, citronellol, anethol (Ahmad et al., 2021)</td>
<td>Antioxidant, anti-inflammatory, antitumour, anticancer, diuretic, antiarthritic, antifungal (Diaz et al., 2018; Hussain, 2016)</td>
</tr>
<tr>
<td>Flavanoids</td>
<td>Flavonoidal glycoside: Kaempferol 3-glucosyl galactosyl glucose, queretin 3-galactosyl glucoside, trigillin quercetin3-glucoside (Ahmad et al., 2021)</td>
<td>Antioxidants, hepatoprotective, Antibacterial, Anti-inflammatory, Anti-cancer, Antiviral (Pandey, 2013)</td>
</tr>
<tr>
<td>Glycosides</td>
<td>Xylopyranosyl, rhamnopyranosyl, glucopyranose¹</td>
<td>Involved in Lipid and steroid metabolism (Anisomov, 1987; Ebrahim and Yimer, 2019)</td>
</tr>
<tr>
<td>Phenolic compounds</td>
<td>Acidic phenolics: Vanillic acid, hydroxybenzoic acid, syringicacid, p-cumaric acids (Ahmad et al., 2021)</td>
<td>Potent antioxidant, anti-cancer, Anticardiovascular disease, Antidiabetic activity, Immunomodulatory (Bhuyan and Basu, 2017)</td>
</tr>
<tr>
<td>Saponins</td>
<td>Steroidal: Alpha hedrin. Triterpenes: Steryl glucosides, Acetylsteryl-glucoside (Ahmad et al., 2021)</td>
<td>Antibiotic, insecticidal, fungicidal, virucidal (Sapna and Desai, 2009)</td>
</tr>
<tr>
<td>Vitamins &amp; Minerals</td>
<td>Calcium, iron, and potassium, phosphorus, zinc (Ahmad et al., 2021)</td>
<td>Vitamins and minerals are important in metabolic and physiological processes (Hussain, 2016; Ebrahim and Yimer, 2019)</td>
</tr>
<tr>
<td>Fixed oils</td>
<td>Unsaturated fatty acids: Oleic acid, Linoleic acid, dihomolinoleic acid, eicodadienoic acid. Saturated fatty acids: Palmitic acid, stearic acid (Ahmad et al., 2021)</td>
<td>Anti-inflammatory, antibiotic, antioxidant (Kazeem and Ogunwande, 2012)</td>
</tr>
<tr>
<td>Steroids</td>
<td>Sitosterol, stigmasterol (Cheikh-Rouhou et al., 2008)</td>
<td>Cholesterol, coronary heart disease (Cheikh-Rouhou et al, 2008), Inflammation, Prostate (BHP), Anti-angiogenic, Anti-cancer</td>
</tr>
</tbody>
</table>
RATIONALE UNDERPINNING HOW AND WHY BLACKSEED CAN BE THE CURE FOR ALL ILLNESSES EXCEPT DEATH

The rationale 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 that 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 and Moist); Phlegmatic (Cold and Moist); Bilious (Hot and Dry); and Melancholic (Cold and Dry) (Bakhtiar, 1999), 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 (Bhikha et al., 2020; Bhikha, 2006).

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 of 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 occur from the qualitative effects from lifestyle factors, especially food and drink resulting in signs and symptoms/illness conditions, associated with different humoral imbalances (Bhikha, 2018).

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 has specific qualities. Lifestyle factors influence humours by the qualities they exert – for example, the weather is either hot or cold, foods such as ginger are 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, have to be personalized to ensure that the overall qualitative state of the humours is the same as the ideal qualitative state of an individual’s temperament. Optimal management of lifestyle factors is ultimately essential in the maintenance of health (Miraj and Kiani, 2016).

Physis

Hippocrates described physis as “vis medicatrix Natura” or ‘the ability of the body to heal itself’ (Miraj and Kiani, 2016). Ultimately, the preservation and maintenance of health are 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 the 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 total structural, functional, and psychological characteristics 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 onwards (Tipo et al., 2019).

The principles of physis, temperament, humours, and lifestyle factors provide 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 (Bhikha, 2006; Tipo et al., 2019).

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 their 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 300 and 500 mg, (which is approximately ¼ teaspoon), whereas the blackseed oil was prescribed ½ to 1 teaspoon – both once or twice daily (Hussain and Hussain, 2016).

An important consideration of consuming blackseed is being aware of the Hot and Dry qualitative effect of blackseed, in relation to an individual’s temperament (Bhikha et al, 2020). For example, a person with a dominant/sub-dominant Bilious (Choleric) temperament which has a dominance of Hot and 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 and 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 1½ 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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