IJICM International Journal of Islamic and Complementary Medicine

Tauhid Alam, *Exploring the prophet Muhhamad's (PBUH)*
e-ISSN: 2828-4569,Volume 6, No 1, 2025
https://doi.org/10.55116/IJICM.V6I1.84
Page 1-7

EXPLORING THE PROPHET MUHAMMAD'S (PBUH) RECOMMENDATION OF KALONJI AND ITS RELEVANCE IN MODERN DISEASE MANAGEMENT: A COMPREHENSIVE REVIEW

Dr. Md. Tauhid Alam[*1], **Dr. Md. Tanwir Alam**[2], Dr. Jamal Akhtar[3], Dr. Sultana Anjum[4]

[1] PG Scholars Department of Kulliyat, GTCH, Patna, India
[2]Assistant Professor Department of Kulliyat, GTCH, Patna, India
[3] Associate Professor Department of Kulliyat, GTCH, Patna, India
[4] Medical Officer, Primary Health Centre Maner, Patna, Government of Bihar, India

ABSTRACT

The seed of Nigella sativa Linn., known by various names like Small Black Seed, Black Cumin, and Kalonji, has a rich history in treating diverse ailments, as lauded by Prophet Mohammad (PBUH) for its healing properties against numerous diseases, except death, in Islamic and Arabic traditions. Rich in volatile oils, fixed oils, tannins, proteins, and essential amino acids, Kalonji finds extensive use in Unani medicine for conditions ranging from joint pain and indigestion to asthma, diabetes, and even cancer. This review synthesizes current literature to explore Kalonji's therapeutic potential, emphasizing its historical significance and relevance in modern disease management. By elucidating its multifaceted applications, from traditional remedies to contemporary pharmacology, the review contributes to a comprehensive understanding of Kalonji's role in healthcare today.

Keywords: Kalonji, Nigella sativa, black seed, Prophet Muhammad (PBUH), modern disease management

ABSTRAK

Biji Nigella sativa Linn. yang dikenal dengan berbagai nama seperti Jintan Hitam atau Kalonji, memiliki sejarah yang kaya dalam mengobati berbagai penyakit, seperti yang dipuji oleh Nabi Muhammad (SAW) karena khasiatnya yang menyembuhkan berbagai penyakit, kecuali kematian, dalam tradisi Islam dan Arab. Kaya akan minyak atsiri, minyak tetap, tanin, protein, dan asam amino esensial, Kalonji banyak digunakan dalam pengobatan Yunani untuk berbagai kondisi mulai dari nyeri sendi dan gangguan pencernaan hingga asma, diabetes, dan bahkan kanker. Artikel ini mensintesis literatur terkini untuk mengeksplorasi potensi terapeutik Kalonji, dengan menekankan signifikansi historis dan relevansinya dalam manajemen penyakit modern. Dengan menjelaskan beragam aplikasinya, mulai dari pengobatan tradisional hingga farmakologi kontemporer, tinjauan ini berkontribusi pada pemahaman yang komprehensif tentang peran Kalonji dalam perawatan kesehatan saat ini.

Kata Kunci: Kalonji, Nigella sativa, jintan hitam, Nabi Muhammad (SAW), manajemen penyakit modern,

***Corresponding author:** -
Dr. Md. Tauhid Alam, PG Scholar, Department of Kulliyat, Govt. Tibbi College and Hospital, Kadam Kuan, Patna (Bihar), India.800003
Mob: 9852170729
Email: drtauhidalam25@gmail.com

e-ISSN: 2828-4569,Volume 6, No 1, 2025
https://doi.org/10.55116/IJICM.V6I1.84
Page 1-7

1. INTRODUCTION

The Prophet Muhammad (PBUH), as a revered figure in Islam, not only provided spiritual guidance but also offered advice on various aspects of life, including health and well-being. Among the recommendations attributed to him, the use of Kalonji (Nigella sativa) has gained prominence for its potential health benefits. Kalonji, also known as black seed or black cumin, has been a subject of interest for its historical significance and traditional medicinal uses. In recent years, scientific research has explored its potential applications in modern disease management, shedding light on its pharmacological properties. This comprehensive review aims to explore the Prophet Muhammad's (PBUH) recommendation of Kalonji (Nigella sativa) and assess its relevance in contemporary disease management. The objective is to provide a comprehensive overview of the prophetic guidance regarding Kalonji, analyzing its alignment with current scientific research and potential applications in modern healthcare practices.

2. METHODS

A comprehensive review was conducted using historical texts, Hadiths, and recent scientific literature to compile evidence on Kalonji's medicinal use.

Selection Criteria for Historical Texts: -Texts from the Islamic Golden Age and classical Unani medicine were included, focusing on works by recognized scholars like Ibn Sina, Al-Razi, and Ibn al-Nafis. Only texts relevant to Kalonji's medicinal use and those widely acknowledged in the academic community were selected.

Selection Criteria for Hadiths: - Hadiths from Sahih al-Bukhari, Sahih Muslim, and Sunan Abu Dawood were included if classified as Sahih or Hasan. Only those directly mentioning Kalonji's medicinal properties and relevance to disease management were selected, with interpretations from Islamic scholars used for context.

Selection Criteria for Scientific Studies: - Recent studies from PubMed, Scopus, and Google Scholar were included, focusing on research from the last two decades. Studies were evaluated based on relevance, sample size, study design, and clinical evidence of Kalonji's effectiveness in managing diseases.
This approach ensures a thorough and transparent review of Kalonji's medicinal properties.

e-ISSN: 2828-4569,Volume 6, No 1, 2025
https://doi.org/10.55116/IJICM.V6I1.84
Page 1-7

3. DISCUSSION

3.1. Historical Significance of Kalonji in Islamic Traditions:-

The recommendation of Kalonji by Prophet Muhammad (PBUH) is rooted in Islamic traditions, where its use is documented in various hadiths. These traditions highlight the Prophet's emphasis on natural remedies and holistic health practices.[1, 2, 3]

3.2. Botanical Profile and Chemical Composition of Kalonji : - Kalonji is derived from the seeds of Nigella sativa, a plant native to Southwest Asia. The seeds contain a diverse range of bioactive compounds, including thymoquinone, thymol, and other phytochemicals, contributing to its therapeutic potential.[4, 5]

3.3 Pharmacological Properties of Kalonji: - Scientific investigations have delved into the pharmacological properties of Kalonji, revealing its anti-inflammatory, antioxidant, antimicrobial, and immunomodulatory effects. These properties make it a potential candidate for the management of various diseases.[6, 7]

3.4. Kalonji in the Management of Cardiovascular Diseases:- The cardiovascular benefits of Kalonji have been investigated, with studies suggesting its potential to lower blood pressure, improve lipid profiles, and reduce the risk of cardiovascular events.[8,9]

3.5. Anti diabetic Potential of Kalonji: - Research has explored the role of Kalonji in diabetes management, highlighting its ability to improve insulin sensitivity, regulate glucose levels, and mitigate complications associated with diabetes.[10, 11]

3.6. Contraceptive and anti-fertility activity: - In a research investigation, it was observed that the oral administration of the hexane extract derived from Kalonji seeds effectively hindered pregnancy in experimental rats when given at a daily dose of 2 g/kg during the first 10 days postcoitum.[24] Another study explored the anti-fertility properties of the ethanolic extract of Kalonji (N. sativa) seeds in male rats. The observed anti-fertility effects in male rats were suggested to be linked to the intrinsic estrogenic activity exhibited by Kalonji.[25]

3.7. Immunomodulatory Effects of Kalonjis: - Kalonji's impact on the immune system has been explored, with evidence suggesting its potential to modulate immune responses, enhance defense mechanisms, and reduce inflammation.[12, 13]

3.8. Antimicrobial Properties of Kalonji: -Kalonji has demonstrated antimicrobial activity against a range of pathogens, including bacteria, viruses, and fungi, making it a potential natural remedy for infectious diseases.[14, 15]

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Page 1-7

3.9. Neuroprotective Potential of Kalonji: - Recent studies have investigated the neuroprotective effects of Kalonji, suggesting its potential role in the prevention and management of neurodegenerative diseases.[16]

3.10. Kalonji in Cancer Prevention and Treatment: - Preliminary studies suggest that Kalonji may have anticancer properties, with potential benefits in preventing cancer development and enhancing the efficacy of cancer treatment.[18, 19]

3.11. Challenges and Considerations in Kalonji Research: - While the potential health benefits of Kalonji are promising, it is essential to acknowledge the challenges and considerations in research, including standardization of extracts, dosage determination, and the need for further clinical trials.[20, 21]

3.12. Excessive consumption of Kalonji may result in several adverse effects:

- It can trigger skin allergic reactions such as toxic epidermal necrolysis and allergic contact dermatitis.[27,28]
- Overconsumption may slow down blood clotting, leading to an increased risk of bleeding.[29]
- Excessive intake of Kalonji oil may cause damage to the kidneys and liver.[30]
- Pregnant and breastfeeding women are advised against using Kalonji oil.[31]
- It's not recommended to take Kalonji oil or its seeds before or after surgery as it can interfere with blood clotting and pose a risk of bleeding.[32]

Prophet Muhammad's (PBUH) recommendations on Kalonji address various health issues, including digestive disorders, respiratory problems, and overall wellness. The review indicates a strong alignment between traditional uses and contemporary scientific findings. The traditional and modern perspectives on Kalonji largely converge. Scientific studies affirm the anti-inflammatory properties of Kalonji, which are attributed to its active component, thymoquinone, consistent with traditional uses. Both sources recognize its antioxidant benefits, which support overall health and longevity. Additionally, traditional claims about Kalonji enhancing immunity are backed by contemporary research demonstrating its immunomodulatory effects. The effectiveness of Kalonji in managing diabetes, as described in traditional medicine, is corroborated by modern studies showing its role in lowering blood glucose levels. Similarly, its use in traditional medicine for cardiovascular health is supported by research highlighting benefits in reducing blood pressure and cholesterol. The antimicrobial properties of Kalonji, used traditionally for infections, are also validated by current scientific evidence. Despite significant support for many traditional claims, some therapeutic effects, such as its potential role in treating specific cancers, require further validation through clinical studies. There is a need for additional research to confirm these effects and explore other areas

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Page 1-7

where traditional claims may not yet be fully supported by modern science. Prophet Muhammad's (PBUH) recommendations on Kalonji align with scientific findings supporting its anti-inflammatory, antioxidant, and immunomodulatory properties, with potential benefits in managing diabetes, cardiovascular diseases, and infections.

Areas for Further Research:

- **Cancer Treatment:-**Traditional claims suggest Kalonji's effectiveness in treating certain cancers. However, current scientific literature lacks comprehensive clinical trials on this aspect. Future research should focus on exploring Kalonji's anticancer properties through well-designed clinical studies.
- **Specific Disease Management:-**While general health benefits are supported, more research is needed on Kalonji's effectiveness in managing specific conditions such as autoimmune diseases and chronic respiratory issues. Clinical trials should evaluate its efficacy and safety in these contexts.
- **Dosage and Long-Term Effects: -** Current studies provide limited information on optimal dosing and long-term use of Kalonji. Research should establish recommended dosages and assess potential long-term effects to ensure safe and effective use.
- **Mechanisms of Action: -** Further studies should explore the detailed mechanisms by which Kalonji exerts its therapeutic effects, particularly in complex conditions like diabetes and cardiovascular diseases. This will help in understanding its full potential and integrating it into clinical practice.[5, 17, 26]

  Future research addressing these gaps could provide more robust evidence for the clinical applications of Kalonji and enhance its role in modern therapeutic practices.

4. CONCLUSION

The Prophet Muhammad's (PBUH) endorsement of Kalonji aligns with modern disease management, underscoring its diverse pharmacological properties. From cardiovascular health to neuroprotection, antimicrobial effects, and potential anticancer properties, Kalonji offers a holistic approach to well-being. This article contributes significantly to understanding Kalonji's potential in contemporary healthcare by integrating historical traditions with current scientific evidence. This review bridges traditional knowledge and modern science, highlighting Kalonji's multifaceted benefits and suggesting areas for future research. By addressing identified gaps and proposing improvements, the review can provide a more comprehensive and insightful examination of Kalonji's therapeutic potential. It will serve as a valuable resource for researchers and practitioners seeking to explore and harness the full potential of Kalonji in modern healthcare practices.[22.23]

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https://doi.org/10.55116/IJICM.V6I1.84
Page 1-7

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Page 1-7

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