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Pharmacological Research - Modern Chinese Medicine

journal homepage: www.elsevier.com/locate/prmcm

A call to action: Addressing the knowledge gap in traditional Chinese medicine's role against acral lentiginous melanoma

ARTICLE INFO

Keywords:

Acral lentiginous melanoma
 Skin neoplasms
 Sarcoma, clear cell
 Medicine, Chinese traditional
 Herbal Medicine
 Natural compounds
 Phytotherapy
 Natural products

To the Editors:

In 2020, skin cancers were the most frequently diagnosed cancers globally, with cutaneous malignant melanoma constituting a significant proportion of these cases [1]. Acral lentiginous melanoma, a rare subtype of melanoma, exhibits distinct genetic and clinical characteristics compared to other melanoma subcategories [2]. This subtype is believed to be largely independent of sun exposure and ultraviolet radiation, and is associated with a poorer prognosis and the highest mortality rates among melanoma subtypes. Acral lentiginous melanoma is suggested to be more prevalent among females, older adults, and individuals of Asian, African, and Hispanic or Latino ancestry, particularly affecting those with darker skins [1–3]. Notably, this subtype of melanoma appears to occur more frequently in Asian countries than Western nations [3]. Given its unique attributes, there is a growing consensus that specific guidelines for the management and staging of acral lentiginous melanoma should be developed, separate from those already developed by the American Joint Committee on Cancer for melanoma [2].

Traditional Chinese medicine is a medical system that has been employed for thousands of years to prevent, diagnose, and treat illnesses through a combination of psychological and physical approaches, as well as the use of herbal products. Formulations derived from this system typically consist of multiple medicinal herbs, which are suggested to target various signalling pathways due to the diverse natural compounds they contain. This multifaceted approach is believed to provide a synergistic effect in the management of cancer, potentially improving the efficacy and safety of chemotherapy in certain malignancies [4].

A preliminary search in the PubMed database yielded no results regarding systematic literature reviews on the association between traditional Chinese medicine use and acral lentiginous melanoma (see supplementary material, Preliminary search). Therefore, this investigation sought to systematically search for evidence of traditional Chinese medicine use against acral lentiginous melanoma, either for prevention or treatment of the disease or its subsequent complications.

A comprehensive search was conducted across PubMed, Scopus, the Cochrane Database of Systematic Reviews, ClinicalTrials.gov, and the

World Health Organization International Clinical Trials Registry Platform (see supplementary material, Search strategy). The search encompassed all available records from the inception of these databases up to 1 September 2024. To ensure a thorough review, no restrictions were applied on language, study type, or publication date. Initially, titles and abstracts of identified studies were screened for relevance. Subsequently, full texts of studies that met the preliminary eligibility criteria were obtained for further evaluation. Screening was conducted in real time on the databases without using any software or programmes.

Initially, 75 articles were retrieved. However, following the screening phase, none of these studies had investigated the role of traditional Chinese medicine, phytotherapy, or natural compounds in the treatment, management, or prevention of acral lentiginous melanoma. The majority of articles were excluded from further analysis due to their focus on clear cell sarcoma of the kidney or their lack of investigation into the potential benefits of traditional Chinese medicine for acral lentiginous melanoma (see supplementary material, Fig. S1 and Table S1). Therefore, despite the rigorous search methodology employed, which involved querying multiple databases without any specific limitations on the retrieved results, this investigation did not find any relevant studies.

The authors acknowledge that the exclusion of Chinese databases may be considered a limitation of this research, as relevant studies published in non-English languages may have been overlooked. However, the authors believe that the absence of such investigations in the English-language literature, even in the form of abstracts, represents a significant gap in knowledge that warrants further exploration.

The authors recommend conducting high-quality and rigorous investigations into the effects of traditional Chinese medicine or phytotherapy on acral lentiginous melanoma. This should include research aimed at targeting cancerous cells or alleviating symptoms and complications following surgical procedures on affected areas, namely the soles of the feet, to optimise the reconstruction process of the affected regions. The authors emphasise the importance of addressing this gap in the literature and encourage the scientific community to prioritise research in this area, given the potential benefits that traditional Chinese

<https://doi.org/10.1016/j.prmcm.2024.100503>

Received 1 September 2024; Accepted 2 September 2024

Available online 3 September 2024

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medicine may offer for the prevention or management of this rare condition.

CRediT authorship contribution statement

Amin Sharifan: Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Project administration, Resources, Supervision, Validation, Visualization, Writing – original draft, Writing – review & editing. **Sarena Saeed:** Investigation, Validation, Writing – original draft, Writing – review & editing. **Soheila Saeed:** Investigation, Writing – review & editing.

Declaration of competing interest

AS holds an unpaid membership role in the Cochrane Early Career Professionals Steering Group and reports complimentary access to ScienceDirect and Scopus after reviewing manuscripts for journals published by Elsevier. SS and SS report no conflicts of interest.

Acknowledgements

None to declare.

Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Supplementary materials

Supplementary material associated with this article can be found, in

the online version, at [doi:10.1016/j.prmcm.2024.100503](https://doi.org/10.1016/j.prmcm.2024.100503).

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Amin Sharifan^{a,*}, Sarena Saeed^b, Soheila Saeed^c

^a Department for Evidence-based Medicine and Evaluation, University for Continuing Education Krems, Krems an der Donau, Austria

^b Department of Bioengineering, Institute of Graduate Studies and Research, Cyprus International University, Nicosia (Lefkoşa), North Cyprus via Mersin 10, Turkey

^c Department of Pharmacy, Eastern Mediterranean University, Famagusta, North Cyprus via Mersin 10, Turkey

* Corresponding author at: Department for Evidence-based Medicine and Evaluation, University for Continuing Education Krems, Dr. Karl Dorrekstrasse 30, 3500 Krems an der Donau, Lower Austria, Austria.
E-mail address: aminsharifan@gmail.com (A. Sharifan).