

INPLASY

Protocol for Melanoma following burns and other injuries at non-acral body sites; a systematic review

INPLASY202590071

doi: 10.37766/inplasy2025.9.0071

Received: 19 September 2025

Published: 19 September 2025

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ADMINISTRATIVE INFORMATION

Support - Salary support for GJW is through Melanoma Institute Australia.

Review Stage at time of this submission - Completed but not published.

Conflicts of interest - None declared.

INPLASY registration number: INPLASY202590071

Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 19 September 2025 and was last updated on 19 September 2025.

INTRODUCTION

Review question / Objective To review studies reporting patients who have developed melanomas following burns and other forms of trauma at non-acral body sites and to summarise tumour features, disease progression and outcomes in these patients.

Rationale There have been many reports of melanomas developing at sites of previous trauma involving the feet and hands but there is also anecdotal evidence suggesting that the development of melanomas at non-acral body sites may also occur after previous injuries, particularly burns. No recent reviews of the latter scenario have been reported.

Condition being studied Non-acral site melanoma.

METHODS

Search strategy Medline, Embase, and the Cochrane CENTRAL register of trials were searched up to 27 May 2025. Medline and Embase searches used the medical subject headings (MeSH) "Melanoma", "Melanoma, Cutaneous malignant" and "Wound and Injuries" as well as text words "cutaneous melanoma", "injury" and "trauma".

Participant or population Studies selected were those that included patients with melanoma and a reported history of trauma prior to the melanoma diagnosis.

Intervention None. This is a prognostic systematic review.

Comparator None. This is a prognostic systematic review.

Study designs to be included No study design or language restrictions were used.

Eligibility criteria Studies selected were those that included patients with melanoma and a reported history of trauma prior to the melanoma diagnosis. For this review, studies that used the words trauma or injury, including burns, were eligible.

Information sources Medline, Embase, and the Cochrane CENTRAL register of trials.

Main outcome(s) Outcomes included; patient characteristics, lesion features, investigations and treatments, follow-up duration, node status, recurrences and death.

Additional outcome(s) As above.

Data management Data were extracted into Excel for storage and descriptive analysis.

Quality assessment / Risk of bias analysis Risk of bias was assessed using the Newcastle-Ottawa scale (1) and a tool developed for case reports (2).
References;

1. Wells G, S.B., O'Connell D, Peterson J, Welch V, Losos M, Tugwell P. The Newcastle-Ottawa scale (NOS) for assessing the quality of nonrandomised studies in meta-analyses. Ottawa Hospital Research Institute, 2011 [cited 2 1]; 1-12].

2. Murad, M.H., et al., Methodological quality and synthesis of case series and case reports. BMJ evidence-based medicine, 2018.

Strategy of data synthesis No meta-analyses was performed, descriptive analyses only.

Subgroup analysis No formal sub group analyses were performed. Data were split into the two major types of injury reported; burns and trauma.

Sensitivity analysis Not applicable, no meta-analyses.

Language restriction None, Articles were translated using Google Translate.

Country(ies) involved Australia.

Keywords Melanoma, Non-acral site melanoma, trauma, injury, burn.

Dissemination plans Publication in a peer reviewed journal.

Contributions of each author

Author 1 - Gabrielle Williams - GJW performed the literature search, data analysis and interpretation and initial drafting of the manuscript.

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Author 2 - John F Thompson - JFT conceived the idea for the article and critically reviewed the manuscript.

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