Surgical excision methods for skin cancer involving the nail unit: a systematic review

Claire Hardie¹, Ryckie Wade¹, Justin Wormald², Brian Stafford³, Faye Elliott¹, Julia Newton-Bishop¹, and Donald Dewar⁴

¹University of Leeds Faculty of Medicine and Health
²Oxford University
³World Health Organization
⁴Leeds Teaching Hospitals NHS Trust

June 6, 2023

Abstract

Introduction Skin cancer affecting the nail unit is rare but is associated with morbidity, and melanoma has a high mortality rate. The principal treatment is surgical excision and methods can be classified into digit-sparing surgery or amputation. Digit-sparing surgery (wide excision or Mohs surgery) may be safe and effective for malignancies involving the nail unit in comparison to amputation if there is not bony invasion. The objective was to assess the efficacy and safety of different methods of surgical excision for skin cancer involving the nail unit. Methods Prospective comparative studies (randomised controlled, non-randomised controlled and prospective observational studies) of surgical excision for skin cancer of the nail unit in all participants were eligible for inclusion. We searched electronic databases, trials registers and conference abstracts. We checked the reference lists of included studies and related systematic reviews for further references to relevant studies, and we contacted experts to enquire if they were aware of any additional relevant trials. We used standard methodological procedures expected by Cochrane. The primary outcomes were overall survival, disease free survival and adverse events/outcomes at 30 days. The secondary outcomes were quality of life outcomes. We planned to use GRADE to assess the quality of the evidence for each outcome. Results We did not identify any studies that met the inclusion criteria for this review. We have been unable to assess our outcomes of overall survival, disease free survival, adverse events/effects and quality of life. Conclusions As we have not identified any studies for inclusion, we are unable to assess the efficacy and safety of different methods of surgical excision for skin cancer involving the nail unit. Prospective research, ideally in the form of a randomised trial, is required in this field. Registration Cochrane Database of Systematic Reviews 2021, Issue 5. Art. No.: CD014590.
Claire Hardie [1,2], Ryckie G Wade [1,2], Justin CR Wormald [3], Brian Stafford [4], Faye Elliott [1], Julia Newton-Bishop [1], Donald Dewar [2]

[1] Leeds Institute of Medical Research, University of Leeds, Leeds, UK

Contact Person: Claire Hardie (claire.hardie@nhs.net)

Department of Plastic and Reconstructive Surgery, Leeds Teaching Hospitals NHS Trust, Leeds, UK

Acknowledgements
This project was supported by the National Institute for Health Research (NIHR), via Cochrane Infrastructure funding to Cochrane Skin. The NIHR had no role in the design, conduct or publication of the content, research or evidence synthesis. The views and opinions expressed therein are those of the authors and do not necessarily reflect those of the Systematic Reviews Programme, NIHR, NHS or the Department of Health.

Data availability statement
Data sharing not applicable – no new data generated

Funding statement
Ryckie Wade is supported by the National Institute for Health Research (NIHR) in Leeds (DRF-2018–11-ST1-159). The views expressed are those of the author(s) and not necessarily those of the United Kingdom’s National Health Service, NIHR or Department of Health and Social Care.

Justin Wormald is supported by the National Institute for Health Research (NIHR) in Oxford (NIHR 301793). The views expressed are those of the author(s) and not necessarily those of the United Kingdom’s National Health Service, NIHR or Department of Health and Social Care.

Conflict of interest disclosure
Claire Hardie: none known. Ryckie G Wade: none known. Justin CR Wormald: none known. Brian Stafford: none known. Faye Elliott: none known. Julia Newton-Bishop: my institution has received a grant from Cancer Research UK to carry out research looking at melanoma survival. Daily fees were paid to me when I was Clinical Lead at the National Institute for Health and Care Excellence (NICE) for the Clinical Melanoma Guideline. I have been reimbursed for travel expenses when asked to give talks at academic meetings. None of these were paid from identifiable commercial entities; conference organisers commonly pool funding sources including commercial companies. I have done legal work for clinical negligence claims in the past and the last case is now coming to an end. These fees were primarily used to support the research group but I did receive one fee from one client personally. My research group is in receipt of a number of research grants from Cancer Research UK, the Medical Research Council, Melanoma Focus, Melanoma Research Alliance and the National Institutes of Health that are for research unrelated to this Cochrane work. A single honorarium was accepted for a talk in 2019; paid to my institution. I receive very small royalties for a textbook published many years ago. I am invited to around three meetings per year where my travel costs are paid by the conference organisers. I have not travelled to meetings where the costs are paid directly by a drug company. I have listed grants and travel expenses paid to enable me to complete my research but I do not believe that they reflect a conflict of interest with respect to this Cochrane work. Donald Dewar: none known.

Reporting guideline
PRISMA 2020

Hosted file