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High frequency ultrasound for pemphigus and pemphigoid: A systematic review

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Li, YR¹; Chang, TA²; Chang, CH³.

Corresponding author:

Chung-Hsing Chang

miriamchangch@gmail.com

Author Affiliation:

Department of Dermatology, Skin Institute, Hualien Tzu Chi Hospital, Buddhist Tzu Chi Medical Foundation, Hualien, Taiwan.

ADMINISTRATIVE INFORMATION

Support - Not applicable.

Review Stage at time of this submission - Piloting of the study selection process.

Conflicts of interest - None declared.

INPLASY registration number: INPLASY202390036

Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 11 September 2023 and was last updated on 11 September 2023.

INTRODUCTION

Review question / Objective The objective of this study is to summarize current evidence of the application of the high-frequency ultrasound on the pemphigus and pemphigoid lesions.

Condition being studied The current diagnosis of pemphigus and pemphigoid is primarily based on a skin biopsy, which is an invasive procedure. Various non-invasive tools have been introduced to assist in the diagnosis of these diseases. Among them, high-frequency ultrasound (HFUS) is easy to interpret and provides real-time imaging results. However, there is still limited evidence regarding the application of HFUS. Therefore, a comprehensive review is required.

METHODS

Search strategy We conducted this systematic review using keywords such as 'ultrasound,'

'sonography,' 'ultrasonography,' 'ultrasonics,' 'pemphigus,' and 'pemphigoid,' along with their synonyms and derivatives. PubMed, Embase, Web of Science, and Cochrane Library were searched.

Participant or population Patients diagnosed with either pemphigus or pemphigoid.

Intervention Application of high-frequency ultrasound on assessing lesions of pemphigus and pemphigoid.

Comparator Not applicable.

Study designs to be included Observational studies, or case report/series.

Eligibility criteria Studies presenting at least one case of either pemphigus or pemphigoid applying high-frequency ultrasound would be eligible.

Information sources PubMed, Embase, Web of Science, and Cochrane Library were searched.

Bibliographies of relevant reviews and each included study were also assessed for eligibility.

Main outcome(s) High-frequency ultrasound findings for both pemphigus and pemphigoid.

Additional outcome(s) Summary of demographics of included cases.

Quality assessment / Risk of bias analysis The Risk Of Bias In Non-randomized Studies of Interventions (ROBINS-I) or the Joanna Briggs Institute (JBI) Critical Appraisal Tools Checklist for Case Reports were applied for quality assessment.

Strategy of data synthesis Narrative synthesis was applied.

Subgroup analysis Not applicable.

Sensitivity analysis Not applicable.

Language restriction No language restriction was placed.

Country(ies) involved Taiwan.

Keywords high-frequency ultrasound; HFUS; pemphigus; pemphigoid.

Contributions of each author

Author 1 - Yi-Rong Li - Literature review; appraisal of included studies; data extraction and statistical analyses; manuscript drafting.

Email: yirong311146@gmail.com

Author 2 - Ting-An Chang - Literature review; appraisal of included studies; data extraction and statistical analyses; manuscript drafting.

Email: mimi83248@gmail.com

Author 3 - Chung-Hsing Chang - Literature review; appraisal of included studies; writing, review, and editing of manuscript.

Email: miriamchangch@gmail.com