Version 1

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Protocol: HLA-DQB1*0301, HLA-DQB1*0501, and HLA-DQA1*0301 and Their Role in Scleroderma- A Systematic Review V.1

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ABSTRACT

Scleroderma remains a debilitating autoimmune condition with immunological linkage to HLA sequences remaining open for further explanation. Through understanding the linkage of specific HLAs to scleroderma, the immunological processes behind the condition can be elucidated. HLA meta-analysis with scleroderma offers a prognostic application to best interpret the odds of scleroderma given a specific HLA. We hope to conduct a meta-analysis to determine how HLA-DQB1*0301, HLA-DQB1*0501, and HLA-DQA1*0301 are linked with scleroderma.

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Administrative Information

1 Title

Protocol: HLA-DQB1*0301, HLA-DQB1*0501, and HLA-DQA1*0301 and Their Role in Scleroderma- A Systematic Review

2 Registration

Registration is via protocols.io

3 Authors

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4 Amendments

None

5 Support

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Introduction

6 Rationale

Scleroderma remains a debilitating autoimmune condition with immunological linkage to HLA sequences remaining open for further explanation. Through understanding the linkage of specific HLAs to scleroderma, the immunological processes behind the condition can be elucidated. In addition, HLA meta-analysis with scleroderma offers a prognostic application to best interpret the odds of scleroderma given a specific HLA.

7 Objectives

We hope to conduct a meta-analysis to determine how HLA-DQB1*0301, HLA-DQB1*0501, and HLA-DQA1*0301 are linked with scleroderma.

Methods

8 Eligibility criteria

Only studies between 1995 and 2022 are included.

9 Information sources

Google Scholar and Pubmed will be accessed during the duration of the study to gather data.

10 Study records

10.1 Data management

Data will be collected by two researchers and will be compiled on a document.

10.2 Selection process

To be included, articles must: contain odds ratio (or enough data to calculate it), be in English, and must use living human test subjects.
Inadequate information for meta-analysis, studies with flawed design, or meta-analyses on the same HLAs are not included.

10.3 Data collection process

Two researchers will individually find and compare studies for inclusion. If in disagreement, researchers will present the study to the PI for the PI to make the final decision on whether to include the information.

11 Data Items

Data collected will include case numbers, control numbers, associated p values if available, the samples studied, odds ratios, confidence intervals, and the name as well as year of the

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study examined.

12 Outcomes and prioritization
HLA-DQB1*0301, HLA-DQB1*0501, and HLA-DQA1*0301 will specifically be examined.

13 Risk of bias in individual studies
The NIH Quality Assessment of case-control studies tool will be used for risk of bias assessment as well as a generated DOI plot.

Data Synthesis

14 15a: Data will be examined using Revman 5.4 and/or MetaXL as needed.

15 15b: I^2 will be used as a method of examining heterogeneity.

16 15c: MetaXL or Revman 5.4 are used if needed for sensitivity analysis.

17 15d: Quantitative synthesis is appropriate.

Meta-bias and Confidence

18 Meta-bias and confidence in cumulative evidence
GRADE criteria will be used.

19

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