Peer Review File

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Reviewer A's Comments:

Comment 1: The authors are to be congratulated for this scholarly, up-to-date and well-written narrative review of a complex set of issues relating to the clinical pathology and clinical utility of dermatomyositis autoantibodies.
Reply 1: Thank you for this lovely comment.
Changes in the text: N/A

Comment 2: **Line 53.** I would suggest including cutaneous LE with the parenthetical clinical disorders listed in this line. Cutaneous LE we can be confused with the isolated cutaneous manifestations of DM in the setting of clinically-amyopathic DM.
Reply 2: Thank you for this very important observation.
Changes in the text: "cutaneous lupus erythematosus" has been added to the parenthetical clinical disorders on line 59.

Comment 3: **Line 117.** Consider inserting the word "initially" before the word "denoted"
Reply 3: Thank you.
Changes in the text: The word "initially" has been added before the word "denoted" on line 125.

Comment 4: **Line 141.** Consider inserting the word "patient" immediately before the word "populations."
Reply 4: Thank you.
Changes in the text: The word "patient" has been inserted immediately before the word "populations" on line 149.

Comment 5: **Line 321.** The wording in this line is confusing to me. Please consider re-wording it to better reflect your intent.
Reply 5: Thank you for the opportunity to clarify this sentence.
Changes in the text: The sentence has been changed to "Though differences in MSA prevalence may be partially due to genetic and environmental factors, autoantibody prevalence also differs significantly between studies conducted in similar populations, raising questions about the consistency of various MSA detection methods (65, 142)."

Comment 6: **Line 326.** The paragraph beginning on this line discusses the need to standardize the more modern scalable immunoassays for DM autoantibodies to the classic immunoprecipitation assay. However, might there be a need to standardize the classic immunoprecipitation assay as well. Scanning the literature in this area, some workers have used K562 cell extract as autoantigen source in their immunoprecipitation assays while other workers have used Hela cells. And even other workers state that "K562 or Hela" cell extracts were used in their studies. It is conceivable that dermatomyositis autoantigen configurations

could vary between different cultured cell lines used as cell extracts in immunoprecipitation assays. It is also conceivable that Mycoplasma contamination of cultured cell line extracts could alter dermatomyositis autoantigen configurations. Thus, it would seem reasonable that any cooperative effort to standardize modern DM autoantibody assays should also include efforts to standardize cell culture extracts in immunoprecipitation assays.
Reply 6: Thank you for this extremely important observation and important insights.
Changes in the text: The following paragraph has been added beginning on line 432: "While there is a need to standardize the more modern scalable immunoassays for DM autoantibodies to the classic IP assay, there might also be a need to standardize the classic IP assay as well. Some workers have used K562 cell extract as autoantigen source in their IP assays while other workers have used Hela cells (16, 42, 86, 115). It is conceivable that DM autoantigen configurations could vary between different cultured cell lines used as cell extracts in IP assays. It is also conceivable that Mycoplasma contamination of cultured cell line extracts could alter DM autoantigen configurations. Thus, it would seem reasonable that any cooperative effort to standardize modern DM autoantibody assays should also include efforts to standardize cell culture extracts in IP assays."

Comment 7: I would like to thank the authors for including Tables #1 and #2 in this manuscript. This summative information will be of great value to clinicians around the world trying to negotiate this clinical utility conundrum.
Reply 7: Thank you for this lovely comment.
Changes in the text: N/A

Reviewer B's Comments:

Comment 8: This is an outstanding review of DM autoantibodies, covering many aspects of their significance and measurement. It is nice to see the caveats outlined and discussion of the ongoing studies and need for careful larger studies of the various platforms for autoantibody detection.
Reply 8: Thank you for this lovely comment.
Changes in the text: N/A

Comment 9: Line 98. There is controversy about whether all pts with anti-synthetase antibodies have their own syndrome, given that some have features of DM. It may be worth indicating that they may not be completely separate and there is an ongoing study to evaluate criteria.
Reply 9: Thank you for this important observation.
Changes in the text: The following sentences have been added beginning on line 109: "There is controversy about whether all patients with anti-synthetase antibodies have their own syndrome, given that some have features of DM (1-2). Anti-synthetase syndrome and DM may not be completely separate and evaluation of criteria is ongoing (1-2, 4)."

Comment 10: There are two to's on line 222
Reply 10: Thank you.

Changes in the text: the second “to” has been removed on line 230.

Comment 11: Change to: “…which ~~for~~ detects anti-Mi-2α…”
Reply 11: Thank you.
Changes in the text: The word “for” has been removed on line 379.

Comment 12: Line 488. **Financial Disclosure:** Declare is misspelled as declare.
Reply 12: Thank you.
Changes in the text: “delcare” has been corrected to “declare” on line 523.