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Authors' reply to correspondence regarding the manuscript entitled "Anti-Ro52 autoantibodies are associated with interstitial lung disease and more severe disease in patients with juvenile myositis"

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We are grateful for the interest in our work (1) shown by Drs. Yang and Liang. In their correspondence regarding this work (2), they raise concerns about (a) the association between anti-Ro52 autoantibodies and ILD in juvenile polymyositis (JPM) and juvenile connective tissue disease-myositis (JCTM), (b) the appropriateness of adjusting for duration of follow-up instead of length of time from onset to diagnosis, and (c) the lack of statistical power to draw some conclusions.

First, as the prevalence of ILD between anti-Ro52 positive and negative patients was not statistically significant in the JPM and JCTM subgroups, we agree that larger studies will be necessary to confirm these tentative associations.

Second, as shown in Table 2, the time from onset to diagnosis was very similar in anti-Ro52 positive (0.55 years) and anti-Ro52 negative patients (0.75 years, $p=0.3$). In contrast, the duration of follow-up trended towards being longer in anti-Ro52 negative patients (6 vs. 4.3 years, $p=0.09$). For this reason, we chose to include duration of follow-up as a covariate in the multivariate analysis.

Third, the number of anti-Ro52 patients was large enough to detect highly significant differences in the multivariate analysis. For example, the prevalence of ILD in anti-Ro52 positive patients was 36% while it was just 4% in anti-Ro52 negative patients independent of

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the duration of follow-up, year of onset, and the presence of myositis-specific autoantibodies ($p < 0.001$). The low number of positive anti-Ro52 patients in some of the autoantibody groups did not affect these key findings.

REFERENCES

1. Sabbagh S, Pinal-Fernandez I, Kishi T, Targoff IN, Miller FW, Rider LG, et al. Anti-Ro52 autoantibodies are associated with interstitial lung disease and more severe disease in patients with juvenile myositis. *Ann Rheum Dis.* 2019.
2. Yang Z and Liang Y. Response to : 'anti-Ro52 autoantibodies are associated with interstitial lung disease and more severe disease in patients with juvenile myositis' by Sabbagh et al. *Ann Rheum Dis.* 2019.