

Supplementary Online Content

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This supplementary material has been provided by the authors to give readers additional information about their work.

eTable 1. Autoantibodies used for immunohistochemistry

| Antibody | Clone | Dilution | Company |
|--|--------------|-----------------|--------------------------|
| Human major histocompatibility complex class I (HLA-ABC) | W6/32 | 1:10,000 | Thermo Fisher Scientific |
| Human major histocompatibility complex class II (HLA-DR) | B308 | 1:500 | Affinity BioReagents |
| Membrane attack complex (C5b-9) | aE11 | 1:100 | Dako |
| Myxovirus resistance protein A (Mx1/2/3) | H-285 | 1:200 | Santa Cruz Biotechnology |

HLA: human leukocyte antigen

eTable 2. Factors associated with dermatomyositis sine dermatitis in patients with dermatomyositis on logistic regression analysis (adermopathic period > 2 years)

Each category of disease duration denotes the following period: short ($\leq 25^{\text{th}}$ percentile, ≤ 1.5 months), middle ($> 25^{\text{th}}$ and $\leq 75^{\text{th}}$ percentile, > 1.5 months and ≤ 6.5 months), and long ($> 75^{\text{th}}$ percentile, > 6.5 months). OR, odds ratio; CI, confidence interval; NXP-2, nuclear matrix protein 2; TIF1- γ , transcription intermediary factor 1 γ

| | Unadjusted (n = 179) | |
|---|----------------------|---------|
| | OR (95%CI) | p value |
| NXP-2 | 20.33 (2.48-166.96) | .005 |
| TIF1- γ | 0.21 (0.03-1.69) | .14 |
| Disease duration: | 1.00 [reference] | |
| Short ($\leq 25^{\text{th}}$ percentile) | | |
| Middle ($> 25^{\text{th}}$ and $\leq 75^{\text{th}}$ percentile) | 4.76 (0.57-39.86) | .15 |
| Long ($> 75^{\text{th}}$ percentile) | 1.16 (0.07-19.08) | .92 |

confidence interval; NXP-2, nuclear matrix protein 2; TIF1- γ , transcription intermediary factor 1 γ

eTable 3. Factors associated with dermatomyositis sine dermatitis in patients with dermatomyositis on logistic regression analysis (for dermatomyositis sine dermatitis without a rash throughout available)

| | Unadjusted (n = 182) | | Adjusted (n = 182) ^a | |
|---|----------------------|---------|---------------------------------|---------|
| | OR (95%CI) | p value | OR (95%CI) | p value |
| NXP-2 | | | | |
| Age | 1.01 (0.98-1.03) | .66 | 1.04 (1.00-1.08) | .05 |
| Female | 1.47 (0.40-5.38) | .56 | 0.57 (0.06-5.18) | .62 |
| Disease duration: | 1.00 [reference] | | 1.00 [reference] | |
| Short (≤ 25 th percentile) | | | | |
| Middle (> 25 th and ≤ 75 th percentile) | 1.07 (0.27-3.75) | .99 | 0.46 (0.05-4.43) | .50 |
| Long (> 75 th percentile) | 0.00 (0.00-infinity) | .99 | 0.00 (0.00-infinity) | .99 |
| Perifascicular atrophy | 5.17 (1.07-25.08) | .04 | 38.93 (3.49-434.42) | .003 |
| NXP-2 | 21.96 (2.71-177.90) | .004 | 187.16 (8.80-3982.94) | .001 |
| TIF1-γ | | | | |
| Age | 1.01 (0.98-1.03) | .66 | 1.01 (0.98-1.04) | .56 |
| Female | 1.47 (0.40-5.38) | .56 | 1.59 (0.34-7.53) | .56 |
| Disease duration: | 1.00 [reference] | | 1.00 [reference] | |
| Short (≤ 25 th percentile) | | | | |
| Middle (25 th and 75 th percentile) | 1.07 (0.27-3.75) | .99 | 0.29 (0.05-1.67) | .17 |
| Long (> 75 th percentile) | 0.00 (0.00-infinity) | .99 | 0.00 (0.00-infinity) | .99 |
| Perifascicular atrophy | 5.17 (1.07-25.08) | .04 | 16.09 (2.35-110.38) | .005 |
| TIF1-γ | 0.19 (0.02-1.51) | .12 | 0.11 (0.01-1.10) | .06 |

follow-up period)

^a Adjusted for autoantibodies (NXP-2 or TIF1-γ) and disease duration. Each category of the disease duration includes the following period: short (≤ 25th percentile, ≤ 1.5 months), middle (> 25th and ≤ 75th percentile, > 1.5 months and ≤ 6 months), and long (> 75th percentile, > 6 months). OR, odds ratio; CI, confidence interval; NXP-2, nuclear matrix protein 2; TIF1-γ, transcription intermediary factor 1 γ

eTable 4. Factors associated with **dermatomyositis sine dermatitis** in patients with dermatomyositis on logistic regression analysis (with perifascicular atrophy)

| | Unadjusted (n = 84) | | Adjusted (n = 84) ^a | |
|---|---------------------|---------|--------------------------------|---------|
| | OR (95%CI) | p value | OR (95%CI) | p value |
| NXP-2 | | | | |
| Age | 1.01 (0.98-1.03) | .65 | 1.04 (1.00-1.08) | .07 |
| Female | 0.90 (0.24-3.36) | .87 | 0.24 (0.03-1.92) | .18 |
| Disease duration: Short (\leq 25 th percentile) | 1.00 [reference] | | 1.00 [reference] | |
| Middle ($>$ 25 th and \leq 75 th percentile) | 0.29 (0.06-1.50) | .14 | 0.47 (0.06-3.54) | .47 |
| Long ($>$ 75 th percentile) | 0.22 (0.03-1.96) | .18 | 0.07 (0.00-1.22) | .07 |
| NXP-2 | 20.67 (3.90-109.59) | .004 | 115.83 (7.32-1831.99) | .001 |
| TIF1-γ | | | | |
| Age | 1.01 (0.98-1.03) | .66 | 1.01 (0.99-1.04) | .32 |
| Female | 0.90 (0.24-3.36) | .87 | 0.67 (0.15-2.92) | .59 |
| Disease duration: Short (\leq 25 th percentile) | 1.00 [reference] | | 1.00 [reference] | |
| Middle ($>$ 25 th and \leq 75 th percentile) | 0.29 (0.06-1.50) | .14 | 0.32 (0.06-1.80) | .20 |
| Long ($>$ 75 th percentile) | 0.22 (0.03-1.96) | .18 | 0.20 (0.02-1.84) | .15 |
| TIF1-γ | 0.13 (0.02-1.09) | .06 | 0.09 (0.01-0.83) | .03 |

^aAdjusted for autoantibodies (NXP-2 or TIF1- γ) and disease duration. Each category of disease duration includes the following period: short (\leq 25th percentile, \leq 3 months), middle ($>$ 25th and \leq 75th percentile, $>$ 3 months and \leq 9 months), and long ($>$ 75th percentile, $>$ 9 months). OR, odds ratio; CI, confidence interval; NXP-2, nuclear matrix protein 2; TIF1- γ , transcription intermediary factor 1 γ .

eTable 5. Factors associated with dermatomyositis sine dermatitis in patients with dermatomyositis on logistic regression analysis (with MAC deposition on capillaries)

| | Unadjusted (n = 165) | | Adjusted (n = 165) ^a | |
|--|----------------------|---------|---------------------------------|---------|
| | OR (95%CI) | p value | OR (95%CI) | p value |
| NXP-2 | | | | |
| Age | 1.01 (0.98-1.03) | .65 | 1.05 (1.01-1.09) | .02 |
| Female | 1.56 (0.49-4.98) | .45 | 0.58 (0.10-3.41) | .55 |
| Disease duration: | 1.00 [reference] | | 1.00 [reference] | |
| Short (\leq 25 th percentile) | | | | |
| Middle (> 25 th and \leq 75 th percentile) | 1.02 (0.31-3.40) | .98 | 0.93 (0.14-6.00) | .94 |
| Long (> 75 th percentile) | 0.25 (0.03-2.26) | .22 | 0.04 (0.00-0.95) | .05 |
| Perifascicular atrophy | 3.18 (0.94-10.78) | .06 | 20.12 (2.54-159.28) | .004 |
| NXP-2 | 27.65 (3.49-218.95) | .002 | 342.12 (15.23-7685.87) | <.001 |
| TIF1-γ | | | | |
| Age | 1.01 (0.98-1.03) | .65 | 1.01 (0.99-1.04) | .36 |
| Female | 1.56 (0.49-4.98) | .45 | 1.51 (0.37-6.26) | .57 |
| Disease duration: | 1.00 [reference] | | 1.00 [reference] | |
| Short (\leq 25 th percentile) | | | | |
| Middle (25 th and 75 th percentile) | 1.02 (0.31-3.40) | .98 | 0.38 (0.07-1.96) | .25 |
| Long (> 75 th percentile) | 0.25 (0.03-2.26) | .22 | 0.08 (0.01-1.01) | .05 |
| Perifascicular atrophy | 3.18 (0.94-10.78) | .06 | 8.33 (1.70-40.90) | .009 |
| TIF1- γ | 0.12 (0.02-0.95) | .05 | 0.07 (0.01-0.68) | .02 |

^aAdjusted for autoantibodies (NXP-2 or TIF1- γ) and disease duration. Each category of disease duration includes the following period: short (\leq 25th percentile, \leq 1.5 months), middle (> 25th and \leq 75th percentile, > 1.5 months and \leq 6 months), and long (> 75th percentile, > 6 months). MAC, membrane attack complex; OR, odds ratio; CI, confidence interval; NXP-2, nuclear matrix protein 2; TIF1- γ , transcription intermediary factor 1 γ