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Fig. S1. Experimental schedule and stress loading on mice while presenting them with an image.

(a) Schedule for the induction of AD-like symptoms, stress loading, and analyses. To induce AD-like symptoms, 150 μL of 4% SDS and Dfb were applied. This procedure was repeated twice a week for 3 weeks. The experimental schedule for psychological stress loading on mice for 2 weeks. Experiments were performed at different time points following the schedule to assess the effects of psychological stress loading on mice. (b), (c), (d) Images show various types of psychological stress being loaded on mice. (e), Images of the mechanical alloknesis assay being performed on mice.

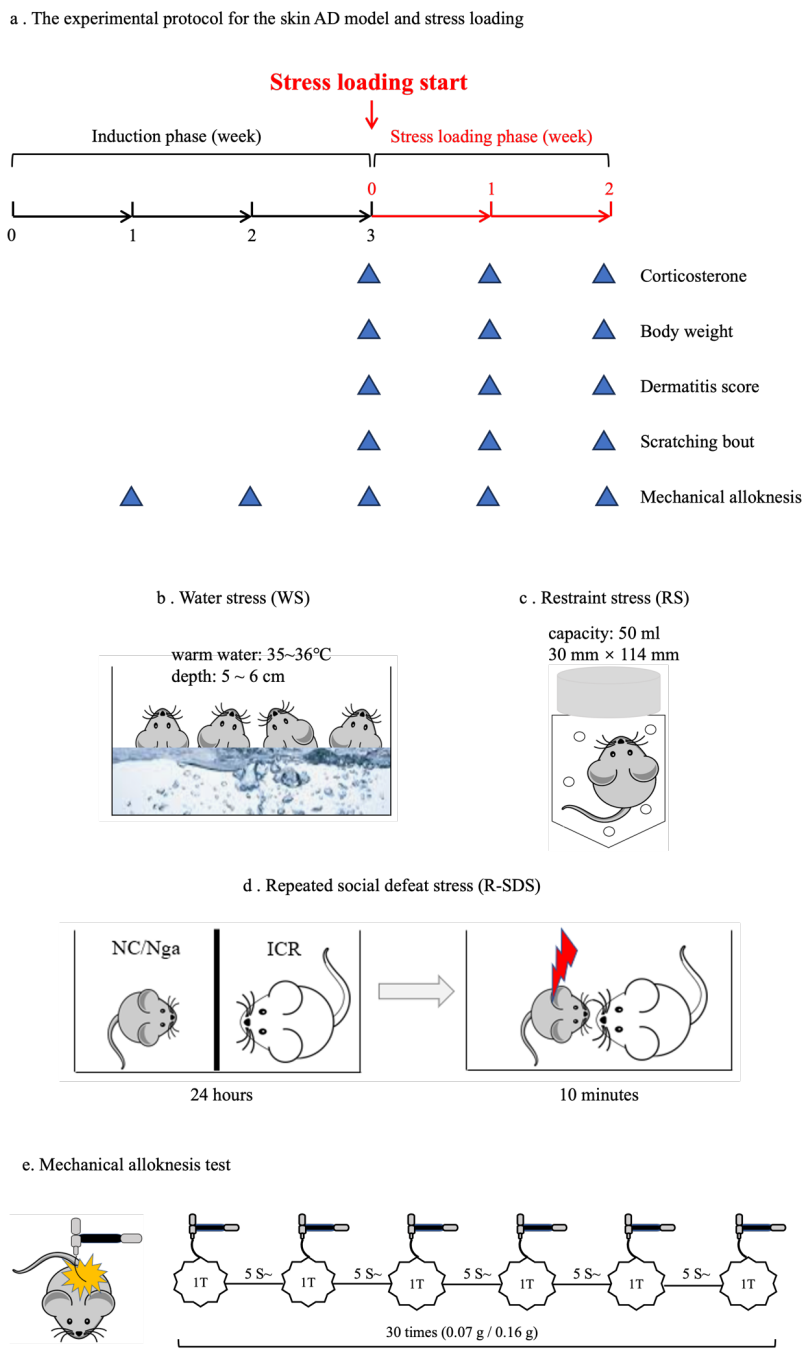

Fig. S2. Effects of psychological stress on skin inflammation and scratching behavior. (a) SDS + Dfb NC/Nga mice exposed to stress exhibited slower improvements and R-SDS psychological stress may have exacerbated AD-like symptoms in NC/Nga mice. (b) In the 1st and 2nd weeks, SDS+Dfb-treated mice exposed to stress exhibited a higher relative ratio of dermatitis scores than those not exposed to stress, which was more prominent in SDS+Dfb+R-SDS-treated mice than in SDS+Dfb-treated mice, and this difference was significant in the 1st and 2nd weeks (n=24-32, *p <0.05, **p <0.005). During the 1st week, SDS+Dfb-treated mice exposed to R-SDS showed a significantly higher relative ratio of scratching bouts than SDS+Dfb-treated and SDS+Dfb+WS-treated mice (*p <0.05 n=21-32). Numbers represent the mean ± SEM of eight independent experiments. (The statistical analysis did not include SDS-treated mice)