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Supplementary Materials for

Neutrophil extracellular traps, B cells, and type I interferons contribute to immune dysregulation in hidradenitis suppurativa

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The PDF file includes:

Other Supplementary Material for this manuscript includes the following:

(available at stm.sciencemag.org/cgi/content/full/11/508/eaav5908/DC1)

Data file S1 (Microsoft Excel format). Primary data.

Supplementary Materials

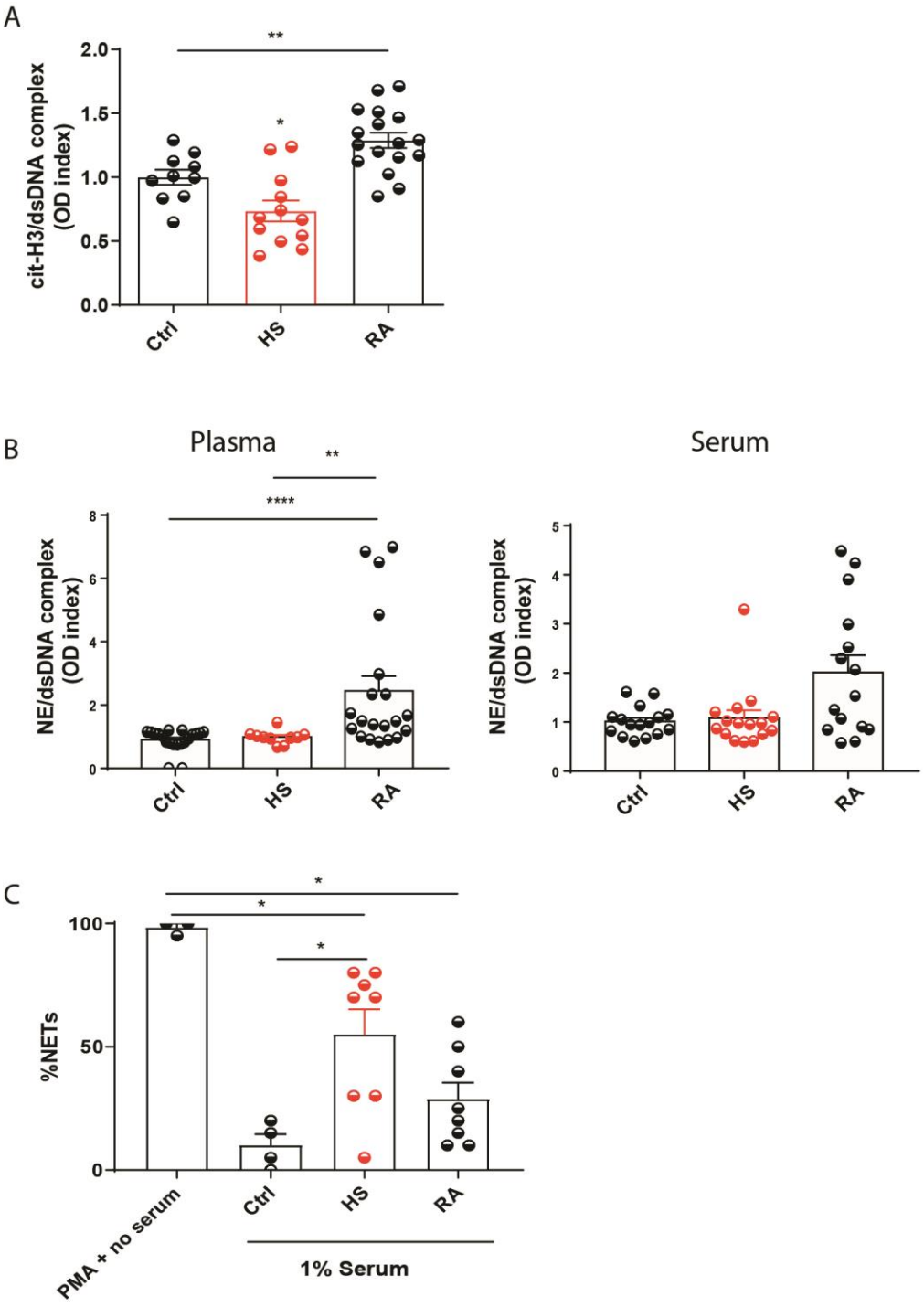

Fig. S1. Analysis of neutrophil stimulation. (A) Control (Ctrl; n=10), HS (n=12) and RA (n=17) sera were analyzed for the presence of NETs complexes (cit-histone H3-DNA

complexes) according to Material and Methods. Results are the mean +/- SEM, *p<0.05, **p<0.01, Mann-Whitney *U* test analysis was used. **(B)** Control (Ctrl; n=20), HS (n=10) and RA (n=20) plasma and (Ctrl; n=16), HS (n=16) and RA (n=15) sera were analyzed for the presence of neutrophil elastase-DNA complexes according to Material and Methods. Results are the mean +/- SEM, **p<0.01, ***p<0.001, Mann-Whitney *U* test analysis was used. **(C)** Control (Ctrl; n=4), HS (n=8) and RA (n=8) sera were analyzed for their capacity to degrade PMA-generated NETs from control neutrophils according to Material and Methods. PMA + no serum was used as reference. Results are the mean +/- SEM, *p<0.05, Mann-Whitney *U* test analysis was used.

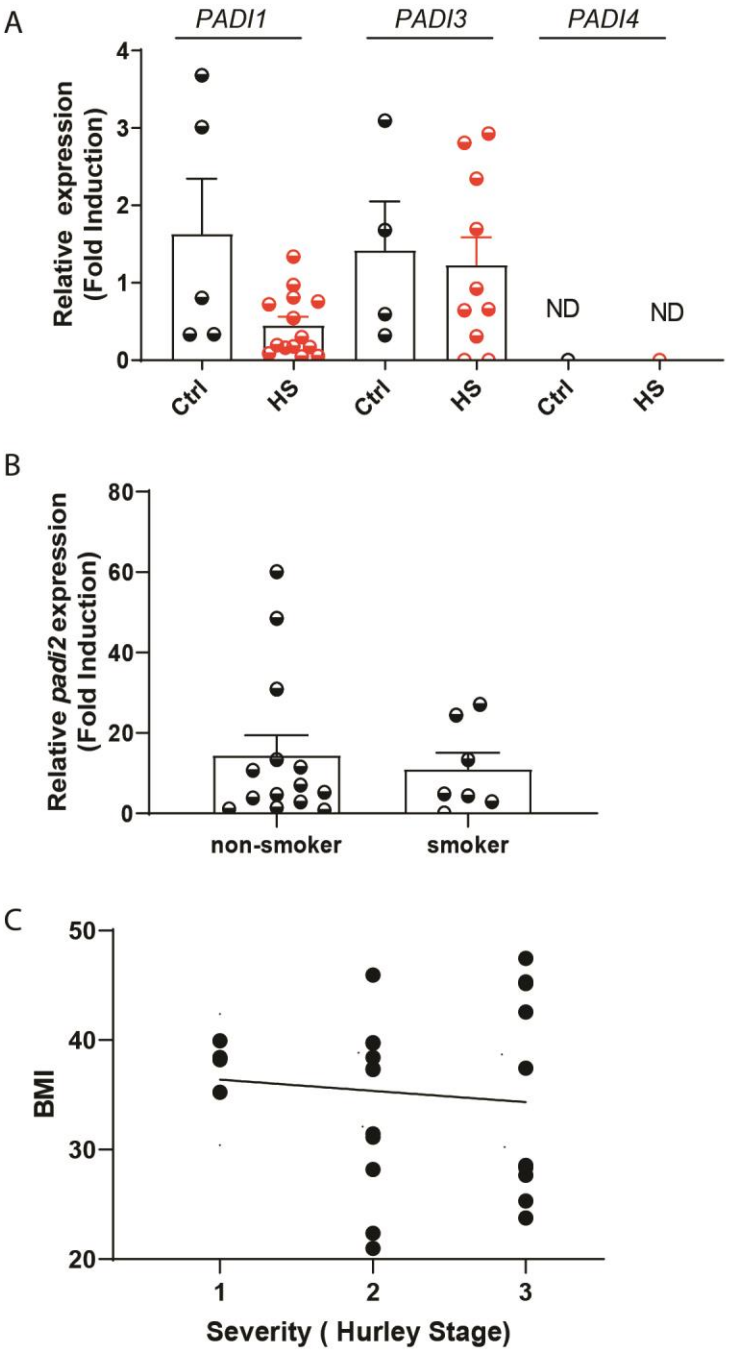

Fig. S2. Analysis of PAD expression and BMI in HS. (A) Control (Ctrl; n=4-5) and HS (n=10-14) skin were analyzed for the presence of *PADI1* and *PADI3* expression according to Material and Methods. Results are reported as relative gene expression (fold induction) and are the

mean +/- SEM. ND, not detected. **(B)** Smoker (Ctrl; n=7) and non-smoker (n=14) HS patients were analyzed for the presence of *PADI2* expression according to Material and Methods. Results are reported as relative gene expression (fold induction) and are the mean +/- SEM. **(C)** Correlation between Body mass index (BMI) and disease severity (Hurley stage) (Stage 1 n=3; Stage II n= 8; Stage III n=8). Mann-Whitney *U* test analysis was used.

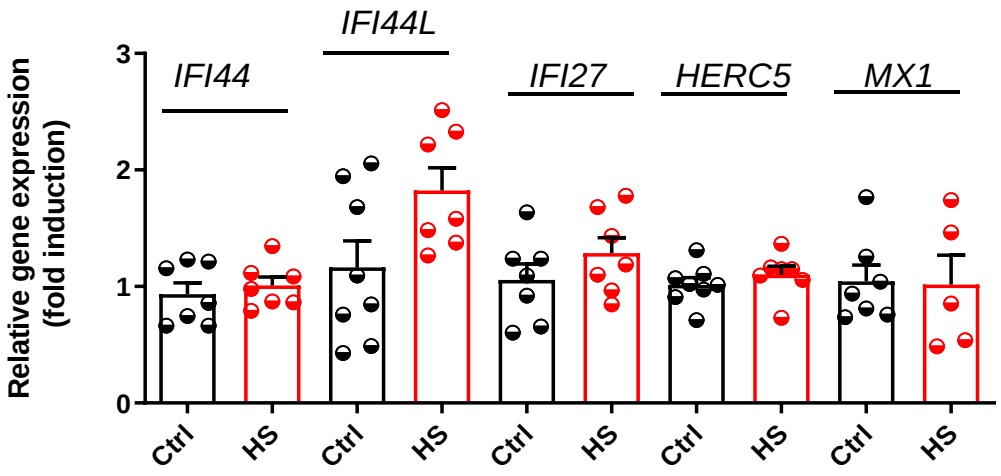

Fig. S3. Type I IFN serum activity is not increased in HS serum. Quantitative PCR for type I IFN inducible genes was performed on HeLa cells incubated with either control (n=7) or HS (n=7) sera for 6 hours according to Material and Methods. Mann-Whitney *U* test analysis was used.

Table S1. Correlation analysis of anti-TNF treatment with B cells and autoantibodies. Linear regression was performed to determine the influence of anti-TNF treatment on B cell activation, IgG production, and presence of autoantibodies.

	anti-TNF treatment	
	R	p value
B cells	0.3019	0.3374
activated B cells	0.1753	0.5814
plasma cells	0.05449	0.7055
IgG	0.4036	0.2494
autoantibodies	0.008467	0.7544