

Supplemental Data:

A pilot study to investigate the immune modulatory effects of fasting in steroid-naïve mild asthmatics

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Supplementary Table. Complete blood count with differential collected in fasting and refeeding state.

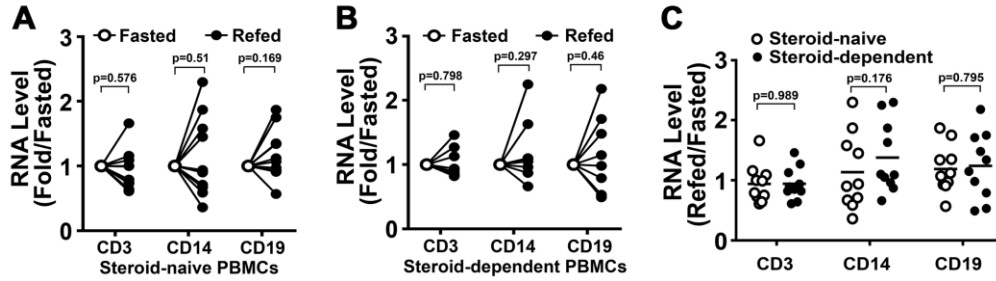
Blood Cell Type	Condition	Unit	Steroid-naive (n=10)	Steroid-dependent (n=8)
WBC	Fasted	Absolute (10 ³ /ul)	5.16 ± 1.16	5.81 ± 2.1
	Refed	Absolute (10 ³ /ul)	5.82 ± 1.09	6.6 ± 1.73
Lymphocytes	Fasted	Relative (%) Absolute (10 ³ /ul)	32.92 ± 10.58 1.65 ± 0.51	33.78 ± 9.0 1.95 ± 0.86
	Refed	Relative (%) Absolute (10 ³ /ul)	28.96 ± 8.1 1.67 ± 0.48	30.21 ± 9.19 1.96 ± 0.68
Monocytes	Fasted	Relative (%) Absolute (10 ³ /ul)	7.77 ± 1.25 0.40 ± 0.1	7.78 ± 1.72 0.43 ± 0.09
	Refed	Relative (%) Absolute (10 ³ /ul)	7.57 ± 1.36 0.43 ± 0.06	7.14 ± 1.44 0.46 ± 0.11
Neutrophils	Fasted	Relative (%) Absolute (10 ³ /ul)	55.30 ± 9.67 2.9 ± 0.97	51.29 ± 9.07 3.02 ± 1.32
	Refed	Relative (%) Absolute (10 ³ /ul)	60.12 ± 7.91 3.52 ± 0.88	57.66 ± 9.13 3.85 ± 1.27
Eosinophils	Fasted	Relative (%) Absolute (10 ³ /ul)	3.09 ± 1.83 0.16 ± 0.12	5.81 ± 3.54* 0.33 ± 0.2*
	Refed	Relative (%) Absolute (10 ³ /ul)	2.53 ± 1.59 0.15 ± 0.11	3.94 ± 2.29 0.27 ± 0.18
Basophils	Fasted	Relative (%) Absolute (10 ³ /ul)	0.63 ± 0.33 0.03 ± 0.02	1.08 ± 0.57* 0.06 ± 0.02*
	Refed	Relative (%) Absolute (10 ³ /ul)	0.57 ± 0.24 0.03 ± 0.01	0.51 ± 0.39 0.05 ± 0.02*

Data are mean ± standard deviation (SD). The p values were calculated using paired student t-test analysis. *, p<0.05 vs. Steroid-naive asthmatics. Also note that p = ns comparing fasting vs. re-feeding for both steroid-naïve and steroid-dependent groups. WBC, white blood count.

Supplemental Figures and Figure Legends

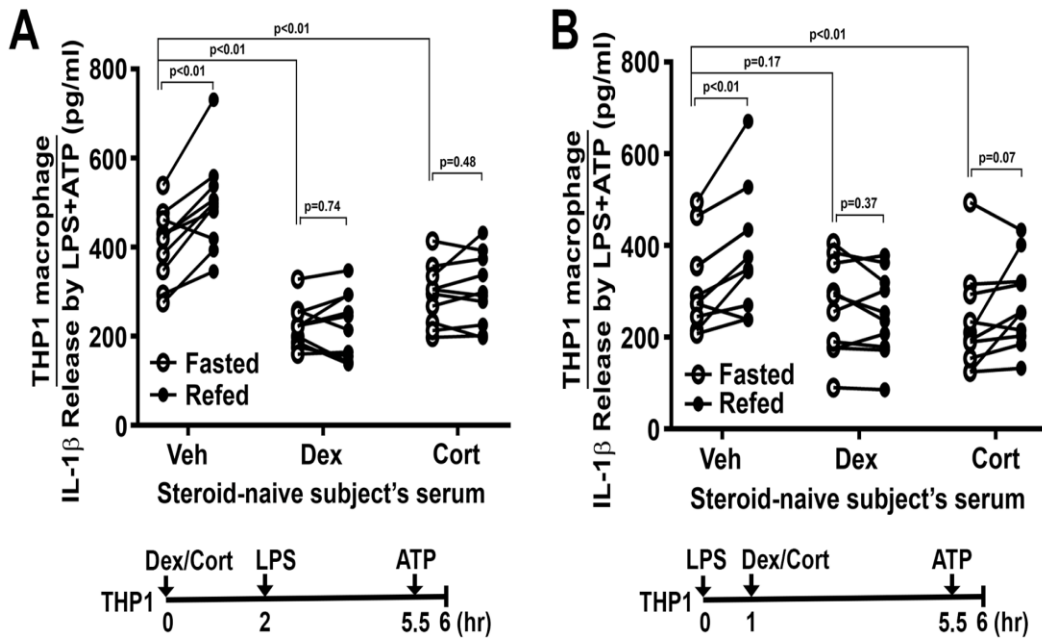
Supplemental Fig 1

Supplemental Figure 1



Supplemental Fig 1. Expression level of genes encoding cell surface receptors from RNA extracted from PBMCs. (A-B) Relative mRNA expression in primary PBMCs isolated from steroid-naïve (n=10) and steroid-dependent (n=8) asthmatics. Fasting data is normalized to = 1 and the refed transcript levels are represented as fold difference compared to fasted expression levels (C) Fold change in transcript levels at the ratio of refed/fasted comparing steroid-naïve to steroid-dependent asthmatic subjects. CD3, CD14, and CD19 transcript encode for canonical T-cell, monocyte and B-cell surface receptors respectively. Statistical analysis using paired student t-test with p values shown in each panel.

Supplemental Figure 2



Supplemental Fig 2. IL-1 β release from THP-1 macrophages with steroid-native asthmatic subjects serum supplemented with Dexamethasone or Cortisol. **(A-B)** The absolute levels of IL-1 β release was assessed by ELISA following initial exposure to 100 nM dexamethasone (Dex), 500 nM cortisol (Cort) or vehicle (Veh) control in the context of inflammasome activation with 10 ng/ml LPS and 5 mM ATP administration. The course of administration of the various compounds with their temporal introduction is shown in a schematic below the line graphs. Statistical analysis using paired student t-test with p values shown in each panel.