

SUPPLEMENTARY FIGURES AND TABLES

Differential effects of dietary versus exercise intervention on intrahepatic MAIT cells and histological features of NAFLD

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FIGURE S1

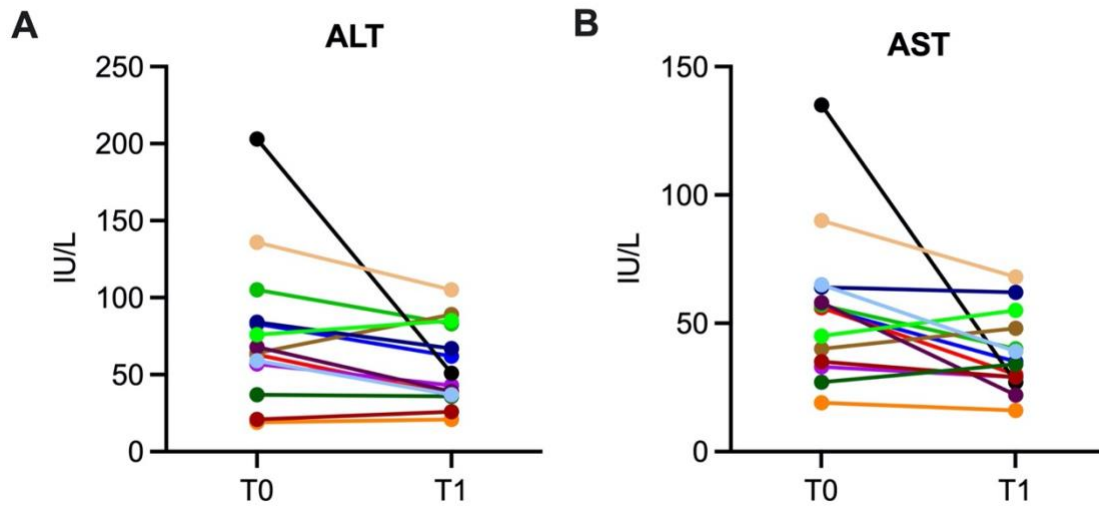


Figure S1. Individual liver enzyme changes in control group participants. (A) ALT and (B) AST levels at baseline assessment (T0) and after 12 weeks of standard of care (T1).

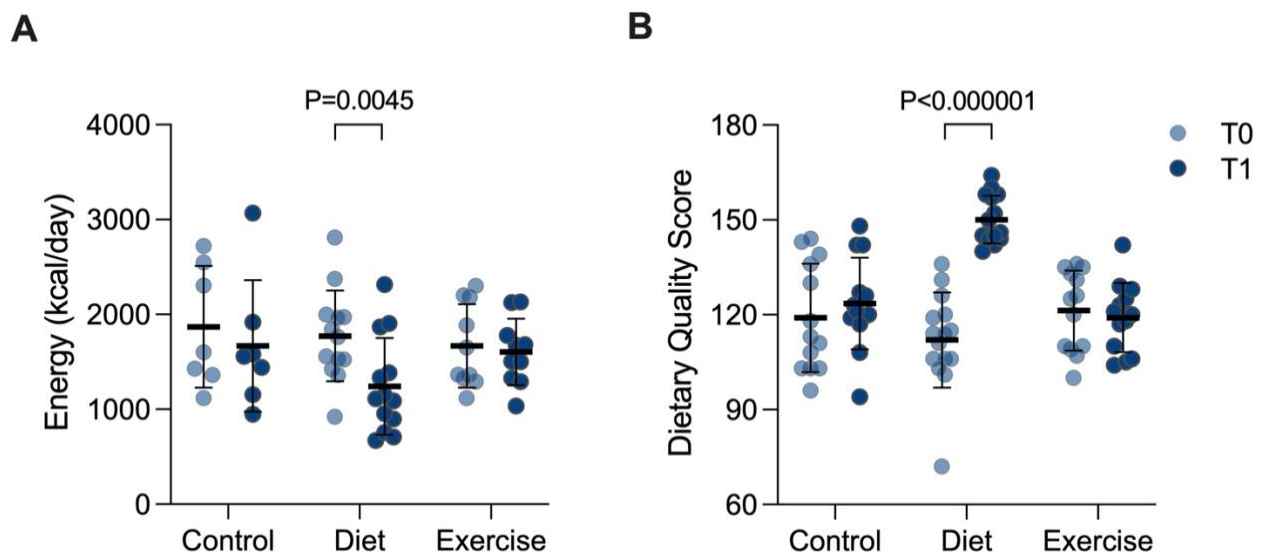
FIGURE S2

Figure S2. Energy intakes and dietary quality before and after diet or exercise intervention. (A) Average daily energy intakes calculated from detailed four-day diet diaries from control (n=7), nutrition (n=13) and exercise (n=10) group participants who completed diaries both before (T0) and after (T1) 12 weeks intervention. (B) Dietary quality assessed through food frequency questionnaire interviews given to control (n=13), diet (n=15) and exercise (n=13) group participants before and after intervention. Data were assessed for normality and analysed by multiple paired t tests. Solid black line and whiskers show mean and standard deviation.

TABLE S1

Table S1: Energy and macronutrient intakes calculated from paired 4-day diet diaries.

	Control (n=7)			Diet (n=13)			Exercise (n=10)		
	T0	T1	P value	T0	T1	P value	T0	T1	P value
Intakes ¹									
Energy (kcal/d)	1869.6 ± 640.8	1667.9 ± 692.2	0.4342	1772.5 ± 479.1	1241.7 ± 509.3	0.0045	1668.0 ± 440.3	1605.0 ± 350.9	0.5907
Protein (g/d)	88.3 ± 17.8	77.7 ± 23.6	0.1563	71.8 ± 16.5	73.7 ± 21.6	0.7501	77.4 ± 24.0	72.7 ± 18.2	0.3579
Protein (%TE)	19.9 ± 4.5	19.3 ± 3.3	0.5504	16.6 ± 2.5	24.9 ± 5.4	0.0003	18.6 ± 3.5	19.3 ± 3.4	0.8272
Fat (g/d)	73.3 ± 36.0	65.7 ± 43.3	0.6250	71.1 ± 28.9	54.0 ± 27.9	0.0803	64.1 ± 26.7	66.1 ± 19.1	0.7648
Fat (%TE)	33.8 ± 8.3	33.2 ± 10.0	0.8826	35.6 ± 8.0	38.4 ± 9.6	0.3241	33.6 ± 7.6	36.9 ± 6.5	0.2382
SFA (g/day)	26.8 ± 15.9	21.6 ± 15.8	0.3925	24.9 ± 11.9	16.5 ± 6.8	0.0260	24.4 ± 13.3	24.3 ± 9.4	0.9636
SFA (%TE)	11.9 ± 4.1	10.6 ± 3.6	0.3882	12.5 ± 4.3	12.4 ± 4.4	0.9619	12.5 ± 4.1	13.4 ± 3.2	0.4474
Carbohydrate (g/d)	213.0 ± 80.0	192.7 ± 77.1	0.5056	184.1 ± 40.1	108.9 ± 48.4	0.0001	197.2 ± 54.6	180.2 ± 45.9	0.4045
Carbohydrate (%TE)	46.3 ± 9.9	47.2 ± 12.0	0.8082	42.9 ± 9.2	35.5 ± 9.6	0.0475	47.9 ± 7.4	44.9 ± 5.0	0.3037
Total sugars (g/d)	83.0 ± 42.5	61.7 ± 39.5	0.2448	74.8 ± 30.5	41.8 ± 23.9	0.0024	80.8 ± 44.0	69.8 ± 32.7	0.3343
Total sugars (%TE)	17.5 ± 5.4	14.8 ± 6.5	0.3020	17.1 ± 5.6	13.4 ± 5.3	0.0847	18.7 ± 6.4	17.0 ± 5.4	0.3393
Dietary fibre ² (g/d)	5.2 ± 4.0	7.3 ± 2.8	0.1643	8.7 ± 5.2	7.9 ± 7.3	0.4533	8.0 ± 3.3	7.5 ± 3.4	0.5899
Sodium (g/d)	3.1 ± 1.2	2.5 ± 1.4	0.2099	2.4 ± 0.6	2.3 ± 0.8	0.6770	2.6 ± 1.0	2.5 ± 0.88	0.6441

¹Data were tested for normality using Shapiro-Wilk test and presented as mean ± standard deviation with differences assessed by paired t test. ²AOAC method. Abbreviations: AOAC, American Association of Analytical Chemists; SFA, saturated fatty acids; TE, total energy.

FIGURE S3

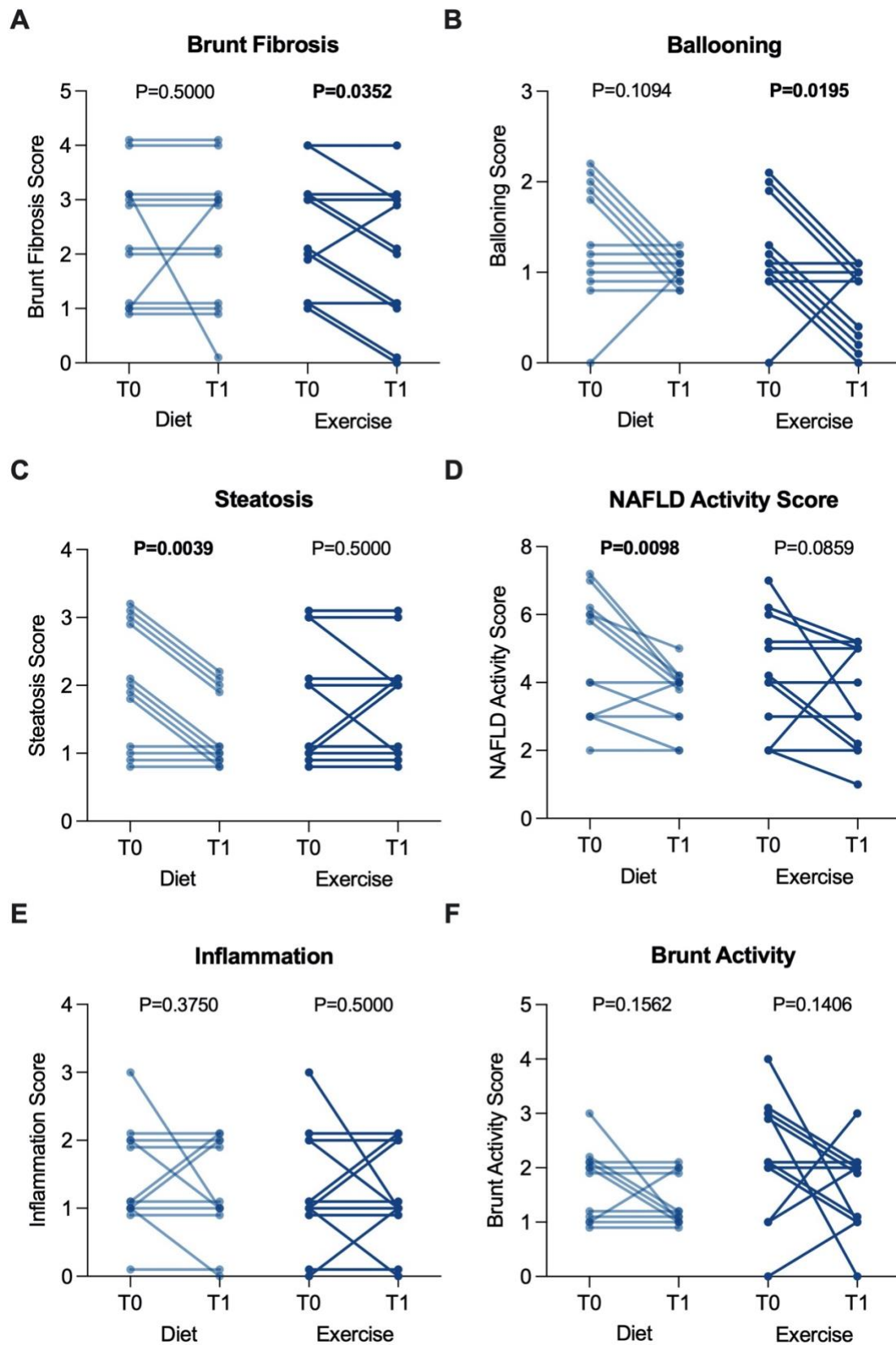


Figure S3. Individual histological changes in response to 12 weeks diet or exercise intervention. (A) Fibrosis, (B) Ballooning, (C) Steatosis, (D) NAFLD Activity Score, (E) Lobular inflammation, and (F) Brunt Activity Score. T0, baseline assessment; T1, post intervention assessment.

FIGURE S4

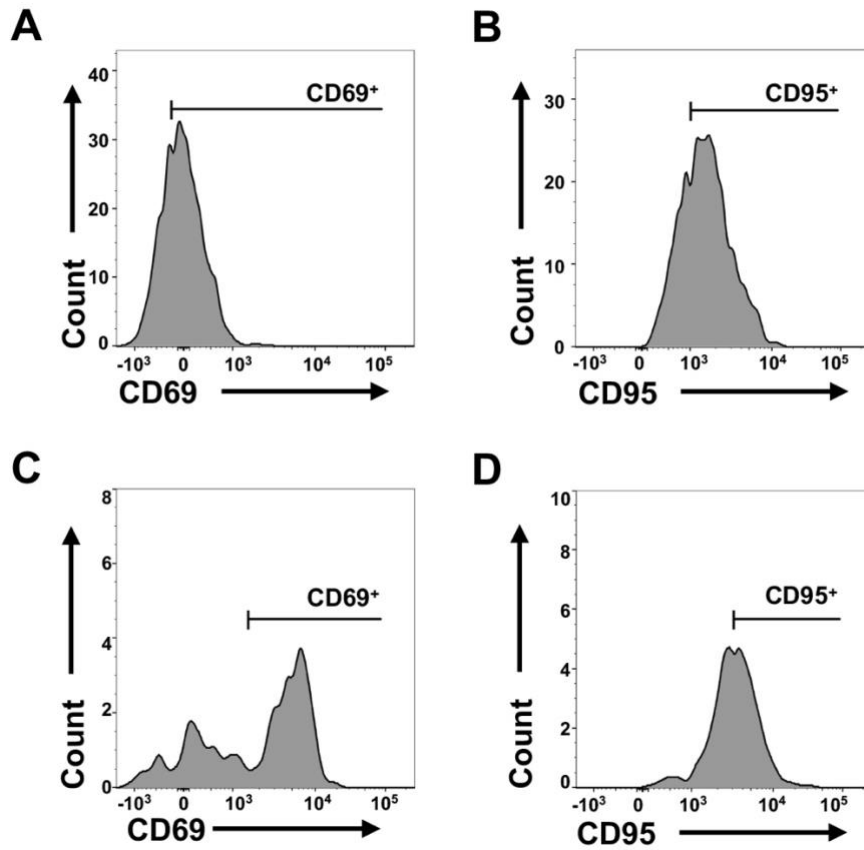


Figure S4. CD69 and CD95 expression in MAIT cells. Representative histograms of distribution of surface marker expression on CD3⁺ CD161^{hi} V α 7.2⁺ MAIT cells in peripheral blood (A) and (B); and collagenase-digested liver tissues (C) and (D). Expression calculated from median fluorescent intensity (MFI) of gated regions.