

Supplementary Material

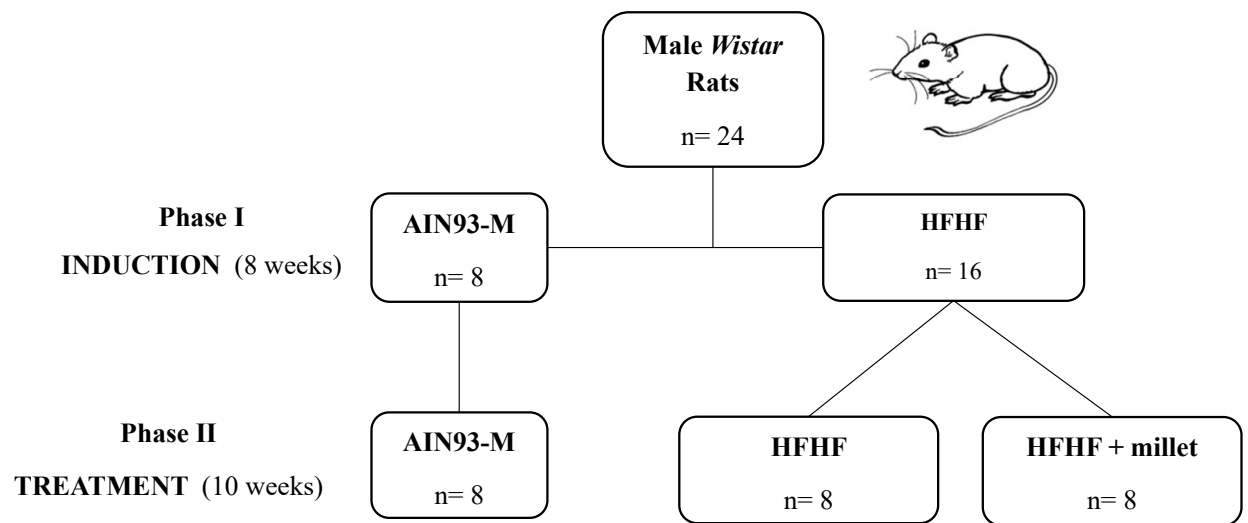


Figure S1. Experimental design. The experiment was divided into two stages: Stage 1: induction of metabolic changes: the control group received a standard rodent diet (AIN-93M); and high fat high fructose group (HFHF) received the AIN-93M diet rich in saturated fat (31%) and fructose (20%), for eight weeks. Stage 2: Intervention: control group AIN-93M was maintained and group HFHF was divided into: HFHF group and HFHF + millet group (HFHF with germinated millet flour replacing 43.6% dietary fiber, 100% starch, 36% protein and 39% oil in experimental diet) for 10 weeks.

Table S1. Effect of germinated millet flour intake on biochemical variables, markers of inflammation, oxidative stress, and other metabolic alterations, in *Wistar* rats (n = 8), for 10 weeks.

Variables	AIN-93M	HFHF	HFHF+Millet
Triglycerides (mg/dL)	117.80 ± 20.37 ^b	147.80 ± 21.57 ^a	100.00 ± 17.93 ^b
Glucose (mg/dL)	86.00 ± 7.21 ^b	100.90 ± 7.82 ^a	87.50 ± 14.27 ^b
Insulin (μ UI/mL)	13.74 ± 2.37 ^b	34.15 ± 7.84 ^a	16.49 ± 4.93 ^b
NFκB-p65 (pg/mL)	226.70 ± 60.93 ^b	346.30 ± 58.88 ^a	131.90 ± 97.14 ^b
IL-10 (pg/mL)	450.30 ± 134.40 ^b	483.80 ± 91.59 ^b	1511.00 ± 528.50 ^a
PPAR-α (ng/mL)	3.63 ± 0.29 ^a	3.05 ± 0.20 ^b	3.65 ± 0.30 ^a
MDA (nM/mg PTN)	351.70 ± 56.96 ^b	411.10 ± 47.09 ^a	343.90 ± 28.98 ^b
SOD (U/mg PTN)	1.84 ± 0.29 ^b	1.65 ± 0.34 ^b	2.14 ± 0.25 ^a
CAT (μmol/min/mL)	25.19 ± 7.31 ^b	26.13 ± 8.47 ^b	35.03 ± 8.22 ^a
TLR4 (ng/mL)	7.25 ± 1.14 ^b	7.99 ± 1.25 ^b	8.99 ± 0.67 ^a
pAKT (U/mL)	1.48 ± 0.28 ^b	1.76 ± 0.61 ^b	3.31 ± 0.77 ^a
Total body fat (g)	20.08 ± 2.67 ^b	32.89 ± 8.46 ^a	24.18 ± 4.45 ^b
Brown adipose tissue (g)	1.14 ± 0.18 ^b	1.23 ± 0.23 ^b	1.47 ± 0.16 ^a

Line with the different letters indicate significant differences by one-way ANOVA and *post-hoc* of Newman-Keuls test (p<0.05). Values are presented as means and standard deviation. NFκB p65: nuclear factor-kappa B; IL-10: interleukin 10; PPARα: peroxisome proliferator-activated receptor alpha; MDA: malondialdehyde; SOD: superoxide dismutase; CAT: catalase; TLR4: toll-like receptor 4; pAKT: phospho-protein kinase B. AIN-93M: standard diet; HFHF: high-fat high-fructose diet; HFHF + Millet: HFHF diet + 28.63% of germinated millet flour.