Supplement Table 6. Micro-CT analysis of cortical and trabecular regions of Caudal 8 vertebrae at 18 month.

	Zero Time	HFWD	HFWD + AQ
Cortical			
Bone mineral content (mg)	0.06 ± 0.00	0.22 ± 0.03	0.29 ± 0.03[a]
Bone mineral density (mg/cc)	383 ± 24	654 ± 47	775 ± 35[a]
Tissue mineral content (mg)	0.04 ± 0.00	0.18 ± 0.03	0.27 ± 0.03[a]
Tissue mineral density (mg/cc)	635 ± 16	833 ± 51	872 ± 46
Inner perimeter (mm)	3.20 ± 0.27	3.23 ± 0.25	3.02 ± 0.17[a]
Outer perimeter (mm)	3.65 ± 0.23	4.81 ± 0.24	4.95 ± 0.24
Marrow area (mm^2)	0.69 ± 0.11	0.66 ± 0.10	0.57 ± 0.06[a]
Cortical area (mm^2)	0.19 ± 0.01	0.52 ± 0.03	0.70 ± 0.05[a]
Total area (mm^2)	0.88 ± 0.10	1.18 ± 0.10	1.28 ± 0.09[a]
Volume (mm^3)	0.17 ± 0.01	0.33 ± 0.02	0.38 ± 0.03[a]
Volume of bone (mm^3)	0.06 ± 0.01	0.22 ± 0.02	0.31 ± 0.02[a]
Trabecular			
Bone mineral content (mg)	0.08 ± 0.01	0.30 ± 0.03	0.34 ± 0.04[a]
Bone mineral density (mg/cc)	225 ± 6	509 ± 45	551 ± 31[a]
Tissue mineral content (mg)	0.04 ± 0.01	0.25 ± 0.03	0.31 ± 0.04[a]
Tissue mineral density (mg/cc)	448 ± 4	687 ± 31	651 ± 13[a]
Bone volume fraction (mm^3/mm^3)	0.27 ± 0.01	0.63 ± 0.06	0.76 ± 0.05[a]
Surface to volume ratio (mm^2/mm^3)	58.2 ± 2.9	19.1 ± 3.2	18.6 ± 2.8
Trabecular thickness (mm)	0.034 ± 0.002	0.103 ± 0.019	0.110 ± 0.017
Trabecular number (1/mm)	7.7 ± 0.1	6.1 ± 0.6	7.0 ± 0.6[a]
Trabecular spacing (mm)	0.095 ± 0.003	0.062 ± 0.009	0.035 ± 0.005[a]
Volume (mm^3)	0.34 ± 0.03	0.59 ± 0.06	0.62 ± 0.05
Volume of bone (mm^3)	0.09 ± 0.01	0.36 ± 0.04	0.47 ± 0.06[a]

Each Caudal 8 vertebra (from a subset) was subjected to micro-CT at two ROIs—cortical (middle isosurface) and trabecular (cranial isosurface). With each vertebra, eleven cortical and trabecular parameters were assessed. Values are means and standard deviation. Statistical significance was determined by paired group comparisons ($p<0.05$). "a" is placed on the HFWD+AQ group: "a" shows statistically significant improvement relative to the HFWD group. Vertebral data are based on 10 male mice each of the two high-fat diets at 18 months. Zero time mice (n=5) were 4 weeks old.