

## Supporting Information

**Table S1. Relationship between histological features and individual metabolic syndrome risk factors**

Histological Feature	Odds ratios of each histological feature* (N=364)									
	Unadjusted Models					Adjusted Models				
	Metabolic Syndrome Risk Factors†					Metabolic Syndrome Risk Factors†				
	WC	TG	HDL-C	HBP	IFG	WC	TG	HDL-C	HBP	IFG
	OR	OR	OR	OR	OR	OR	OR	OR	OR	OR
Steatosis:										
Severe vs mild/moderate	1.07	1.45	1.01	0.85	1.22	1.06	1.45	0.88	1.05	1.31
P	0.84	0.14	0.98	0.55	0.50	0.86	0.15	0.64	0.87	0.38
Lobular inflammation:										
2+ under 20X mag vs < 2	1.23	0.86	<b>0.64</b>	0.98	0.76	1.16	0.88	0.65	0.98	0.76
P	0.47	0.50	<b>0.05</b>	0.92	0.32	0.63	0.58	0.07	0.95	0.33
Portal inflammation:										
Present vs none	<b>2.95</b>	0.63	0.26	<b>2.64</b>	1.22	<b>2.90</b>	0.65	1.30	<b>2.72</b>	1.11
P	<b>0.001</b>	0.13	0.44	<b>0.001</b>	0.61	<b>0.003</b>	0.16	0.40	<b>0.002</b>	0.78
Ballooning:										
Many vs none/few	1.33	1.08	0.81	1.66	0.81	1.02	1.09	0.88	1.51	0.75
P	0.66	0.73	0.38	0.06	0.46	0.96	0.71	0.61	0.15	0.34
Fibrosis‡:										
Advanced vs moderate vs none to mild	0.87	0.89	0.99	<b>2.00</b>	1.14	0.75	0.87	1.15	<b>1.71</b>	1.04
P§	0.60	0.57	0.96	<b>0.002</b>	0.62	0.31	0.49	0.52	<b>0.03</b>	0.87
NASH:										
Definite vs borderline (zone 1 and zone 3) vs NAFLD, no NASH	0.78	1.20	1.35	<b>1.93</b>	0.34	0.72	1.21	1.26	<b>2.16</b>	0.96
P§	0.38	0.39	0.17	<b>0.005</b>	0.81	0.27	0.38	0.31	<b>0.002</b>	0.87
NAFLD Activity Score:										
5+ vs < 4	1.37	1.20	0.99	1.68	0.79	1.13	1.24	1.01	1.36	0.76
P	0.28	0.41	0.97	0.20	0.38	0.70	0.35	0.98	0.25	0.33
HC iron grade‡:										
Present vs absent	<b>0.36</b>	1.18	0.69	1.30	0.82	0.57	1.21	0.76	1.00	0.74
P	<b>0.002</b>	0.55	0.17	0.39	0.57	0.13	0.51	0.36	1.00	0.42
RES iron grade‡:										
Mild/more than mild vs none	<b>0.36</b>	0.63	0.81	1.70	1.39	<b>0.47</b>	0.61	0.89*	1.27	1.38
P	<b>0.001</b>	0.07	0.42	0.07	0.29	<b>0.04</b>	0.08	0.68	0.48	0.33

\* OR's (odds ratios) and P values determined from logistic regression of each binary histological feature in relation to the 5 components of metabolic syndrome. Adjusted models included sex, race/ethnicity, and age (18-39, 40-59, 60+ years).

† WC denotes "Large waist circumference" defined as > 102 cm for males and > 88 cm for females (n=297, 83%); TG denotes "High triglycerides" defined as serum triglycerides ≥ 150 mg/dL; HDL-C denotes "High HDL cholesterol value" defined as < 40 mg/dL in males and <50 mg/dL in females; HBP denotes "Elevated blood pressure (BP)" defined as either systolic BP ≥ 130 mm Hg, and/or diastolic blood pressure ≥ 85 mmHg; IFG denotes "Impaired fasting glucose" defined as fasting serum

glucose  $\geq$  110 mg/dL

§ COR's (cumulative odds ratios) and P values determined from ordered logistic regression of fibrosis (none/mild to moderate to advanced) or steatohepatitis diagnosis (NAFLD, no NASH to borderline to definite) in relation to the 5 components of metabolic syndrome. Adjusted models included sex, race/ethnicity, and age (18-39, 40-59, 60+ years).