

COMPARISON OF LEAN VERSUS OVERWEIGHT/OBESE PATIENTS
WITH NONALCOHOLIC FATTY LIVER DISEASE

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Background: Data on Filipino patients with nonalcoholic fatty liver disease (NAFLD) are scarce. We aimed to compare the clinical and biochemical profiles of normal/underweight (lean) versus overweight/obese NAFLD patients. **Methods:** Consecutive patients diagnosed with NAFLD on ultrasound in a single outpatient hepatology clinic from February 2007-January 2017 were included. Patients with significant alcohol intake, secondary causes of steatosis, and incomplete data were excluded. Demographics, comorbidities, liver enzymes, albumin, International normalized ratio (INR), hepatitis, lipid profile, uric acid and creatinine were recorded. Independent t-test was used for continuous, while chi-square was used for categorical variables. **Results:** A total of 663 patients (58.1% male) were included. Most patients were overweight/obese (74.2%) while 82.1% had an elevated alanine aminotransferase (ALT). Most patients (64.6%) were asymptomatic with upper abdominal discomfort (30.2%) being the most common symptom. Cirrhosis or hepatocellular carcinoma (HCC) were already present in 4.4% and 5.9%, respectively, on initial consult. Concomitant hepatitis B was equally common in patients with and without cirrhosis (20.7% vs 17.5%; $p=0.660$) or HCC (17.9% vs 12.8%, $p=0.415$). Compared to Lean NAFLD patients, overweight/obese patients were more likely to be younger (50.9 ± 14.2 vs 54.6 ± 14.2 ; $p=0.004$), higher ALT (57 ± 52.8 vs 43.5 ± 36.4 , $p < 0.0001$) and higher INR (1.9 ± 0.93 vs 0.98 ± 0.12 , $p=0.025$). Overweight/obese patients were also more likely to have diabetes mellitus (49.8% vs 33.9%; $p < 0.0001$), hypertension (58.3% vs 47.1%, $p=0.007$), dyslipidemia (73.6% vs 63.2%; $p=0.011$) and metabolic syndrome (63.6% vs 36.8%; $p < 0.0001$) and less likely to be cirrhotic (3.3% vs 7.6%; $p=0.0265$). Independent factors associated with overweightedness and obesity in NAFLD patients were younger age (OR=1.02 95% CI=1.02-1.003; $p=0.014$), lower HDL (OR=1.02 95% CI=1.029-1.005; $p=0.005$), metabolic syndrome (OR=0.358 95% CI=0.5232-0.245; $p < 0.0001$), absence of cirrhosis (OR=2.493 95% CI=5.586-1.116; $p=0.026$). **Conclusions:** Majority of NAFLD patients are overweight/obese and with elevated ALT, with a significant proportion (7.8%) already with cirrhosis/HCC on initial presentation. Overweight/obese NAFLD patients are more likely to have metabolic derangements and its consequences compared to lean patients.