**INTRODUCTION**

The global obesity epidemic is a driver for obesity-related complications such as non-alcoholic fatty liver disease (NAFLD). The active ‘hepatitic’ subtype of NAFLD is non-alcoholic steatohepatitis (NASH) and potentially leads to liver fibrosis and cirrhosis. It is estimated that the prevalence of NAFLD in the general population is approximately 20% but increases to over 30% in morbidly obese subjects. It is important to validate the alarming high prevalence of NAFLD, including the occurrence of NASH, since these numbers are based on studies that differ in set-up (i.e., diagnostic tool, histological staging system).

**AIM**

The aim of this study was to determine the prevalence of NAFLD in a cohort of morbidly obese subjects scheduled for bariatric surgery.

**METHOD**

In this prospective cohort study, 149 morbidly obese subjects scheduled for bariatric surgery were included. A standard metabolic work-up was performed and body composition was assessed using bioelectrical impedance analysis. Liver biopsies were obtained perioperatively and were evaluated by a panel of liver pathologists. Histological diagnosis was based on Steatosis Activity Fibrosis (SAF) score. NAFLD was categorized into simple steatosis when steatosis was present in > 5% of hepatocytes without ballooning or NASH if ballooning and inflammation were both present in the biopsy.

**CONCLUSIONS**

No NAFLD was seen in 43.6%, simple steatosis in 47.7%, and NASH in 8.7% of subjects. Subjects with NAFLD were older than subjects without NAFLD (48.7 ± 10.3 y vs 42.7 ± 10.9 y; p < 0.001), had higher prevalence of hypertension (38.0% vs 18.3%; p = .012), type 2 diabetes (32.4% vs 10.8%; p = .002) and dyslipidemia (29.6% vs 12.3%; p = .014).

Median (IQR range) BMI did not differ significantly: 38.0 (35.0–40.5) vs 38.4 (31.5–40.6) vs 38.5 (37.1–40.9) in subjects with healthy liver, NAFLD and NASH, respectively.

Subjects with NAFLD had a lower percentage of total body fat (44.7 ± 5.5% vs 47.6 ± 4.8%; p = .005), and a higher fat-free mass (55.9 ± 5.5% vs 52.6 ± 5.4%; p = .002), than patients with a healthy liver.

Of interest, preoperative weight loss was equal in subjects with healthy liver, NAFLD and NASH.

**REFERENCES**


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