

## **Prevalence and risk factors of sonographically detected non alcoholic fatty liver disease in a screening centre in Klang Valley, Malaysia: an observational cross-sectional study**

### **ABSTRACT**

**Objectives:** Nonalcoholic fatty liver disease (NAFLD) is a very common liver disorder in Western countries. As of late, it has been found to be prevalent in Asia as well. It is a benign disease unless it develops into necroinflammation and fibrosis. This study was proposed to determine the prevalence and risk factors of sonography-detected NAFLD among Malaysian adults in Klang Valley, West Malaysia. **Study design:** An observational cross-sectional study. **Methods:** The participants were aged between 45 and 75 years who participated in a screening program at the Golden Horses Health Sanctuary in Klang Valley. Lipid profile and anthropometric measurements were collected from the subjects' medical records. Ultrasound machine and a structured self-administered questionnaire were used as instruments for recruiting data from the subjects. The subjects who consumed alcohol (>140 g/wk for men and >70 g/wk for females), had hepatitis B or C viruses, liver insults, and surgery, and taken lipid-lowering medications were excluded from the study. **Results:** A total of 628 subjects were analyzed, and 235 (37.4%) subjects were diagnosed with definite NAFLD. They comprised 518 (82.5%) Chinese, 92 (14.6%) Malays, and 18 (2.9%) Indians. Peak prevalence of NAFLD was found in 53 to 60 years age group. The higher prevalence of NAFLD was among men (48.3%) than women (27.3%) and among Indians (61.1%) and Malays (51.1%) than among Chinese (34.2%). NAFLD has been found to be strongly correlated with male sex, high body mass index ( $\geq 23.0$  kg/m<sup>2</sup>), hypertriglyceridemia, low high-density lipoprotein cholesterol, diabetes mellitus, and hypertension. **Conclusion:** NAFLD is quite common among adults in Malaysian urban population. The prevalence of NAFLD was inordinately high among the 53 to 60 years age group, male sex, Indians, and Malays (as compared with Chinese). Age >60 years, male sex, high body mass index ( $\geq 23.0$  kg/m<sup>2</sup>), hypertriglyceridemia, and diabetes mellitus were proven to be risk predictors for NAFLD.

**Keyword:** Malaysia; Nonalcoholic fatty liver disease; Risk factors; Sonography