Clinical picture, insulin resistance, and adipocytokines profiles of nonalcoholic steatohepatitis (NASH) patients in Indonesia.

Lesmana CR, Lesmana LA, Akbar N, Gani RA, Simandjuntak W, Oemardi M, Soejono CH, Marwoto W, Juwono V.

Department of Internal Medicine, Faculty of Medicine, University of Indonesia, Diponegoro no. 71, Jakarta Pusat, Indonesia.

AIM: To know the clinical picture of subjects with NASH in Jakarta, Indonesia and the prevalence of insulin resistance, TNF-a, and adiponectin levels among them. METHODS: this was a comparative cross-sectional study between patients with histopathologically confirmed NASH and normal subjects. The population of study was patients with fatty liver without history or significant consumption of ethanol. Patients were consecutively enrolled in the study if the ultrasonography showed fatty liver appearance with or without increased liver transaminases.

RESULTS: Thirty patients and thirty normal subjects were recruited between February 2005 and January 2006. Median age of the patients was 45 years while the median age of the control group was 32 years. More than 80% of the patients were overweight (BMI 23-25 kg/m2) and obese (BMI > 25 kg/m2). Increased alanine aminotransaminase levels were found in almost two thirds of the patients. Other comorbidities included hypertension, hypertriglyceridemia, and type-2 diabetes mellitus. In patients with NASH, fasting insulin level, insulin resistance, and TNF-a level were significantly higher, whereas adiponectin level was significantly lower than the control group. CONCLUSION: Most of the metabolic syndrome determinants were found in patients with NASH. HOMA-IR and TNF-alpha levels in subjects with NASH are higher than those in controls. Adiponectin levels in subjects with NASH are lower than those in controls. Further epidemiological studies are still needed to elaborate the causal relationship of insulin resistance and cytokine profiles to the development of NASH in Indonesia.