

## INTISARI

**Latar belakang:** *Non-Alcoholic Fatty Liver Disease* (NAFLD) adalah perlemakan hati yang bukan disebabkan konsumsi alkohol berlebih, ditandai dengan kerusakan dan peradangan kronis hati yang terjadi pada 40% pasien obesitas berat. Penanda inflamasi sekarang tidak spesifik, sehingga fibronectin diharapkan mampu mendeteksi dini inflamasi kronis pada obesitas yang berlanjut menjadi NAFLD. Tujuan penelitian ini adalah untuk mengetahui rasio prevalensi adanya kondisi *Non-Alcoholic Fatty Liver Disease* (NAFLD) pada wanita *obese* berdasarkan kadar fibronectin.

**Metode:** Penelitian ini merupakan studi observasional analitik dengan desain *cross sectional*. Subjek penelitian adalah wanita *obese* >17 tahun dengan IMT >25 kg/m<sup>2</sup>. Pemeriksaan kadar fibronectin menggunakan metode kuantitatif *sandwich Enzyme Linked Immuno Sorbent Assay* (ELISA). Diagnosis NAFLD ditegakkan dengan USG abdomen. Analisis beda proporsi fibronectin antar kelompok dengan *Chi-square*, kemudian dihitung rasio prevalensinya.

**Hasil:** Subjek penelitian ini sebanyak 48 wanita *obese* dengan IMT >25 kg/m<sup>2</sup>. Berdasarkan USG abdomen didapatkan 27 subjek pada kelompok wanita *obese* dengan NAFLD dan 21 subjek pada kelompok wanita *obese* tanpa NAFLD. Rerata umur 49,9±9,6 tahun dan rerata IMT 30,75 kg/m<sup>2</sup>. Kadar fibronectin pada *cut-off* ≥508,27 ng/ml menunjukkan adanya NAFLD pada wanita *obese* dengan rasio prevalensi (RP) 4,4 (95% CI: 1,99-9,68), p <0,001.

**Simpulan:** Kadar fibronectin dapat menggambarkan adanya kondisi NAFLD pada wanita *obese*. Kadar fibronectin ≥508,27 ng/ml memiliki rasio prevalensi adanya kondisi NAFLD sebanyak 4,4 kali pada populasi wanita *obese*.

**Kata kunci:** *Obese, IMT, USG, Fibronectin, NAFLD, Rasio Prevalensi*

## ABSTRACT

**Background:** Non-Alcoholic Fatty Liver Disease (NAFLD) is a fatty liver condition without history of excessive consumption of alcohol, characterized by damage and chronic inflammation of the liver and occurs in 40% of patients with severe obesity. Current inflammatory markers are not specific, so fibronectin is expected to be a marker that allows early detection of chronic inflammation in obese patients potentially evolve to NAFLD. The purpose of this study was to determine the prevalence ratio of Non-Alcoholic Fatty Liver Disease (NAFLD) in obese women based on fibronectin levels

**Method:** This study was an observational analytic study with cross-sectional design. Subjects were obese women aged > 17 years old with BMI >25 kg/m<sup>2</sup>. Fibronectin levels were analyzed using a quantitative sandwich Enzyme Linked Immuno Sorbent Assay (ELISA) method. The diagnosis of NAFLD is confirmed by an abdominal ultrasound. Chi-square analysis was carried out to find the difference in the proportions of fibronectin between groups, and then the prevalence ratio was calculated.

**Results:** The subjects of this study were 48 obese women with a BMI  $\geq 25$  kg/m<sup>2</sup>. Based on abdominal ultrasound, 27 subjects had NAFLD and 21 subjects didn't. The mean age was  $49.9 \pm 9.6$  years and the mean BMI was 30.75 kg/m<sup>2</sup>. Fibronectin levels at the cut-off  $\geq 508.27$  ng/ml could be used as a predictor of NAFLD in the group of obese women with a prevalence ratio (PR) of 4.4 (95% CI: 1,99-9,68),  $p < 0.001$ .

**Conclusion:** Fibronectin levels can be a marker of NAFLD in obese women. Fibronectin levels of  $\geq 508.27$  ng/ml have a prevalence ratio of NAFLD as much as 4,4 times in the population of obese women.

**Keywords:** Obese, BMI, USG, Fibronectin, NAFLD, Prevalence Ratio