

## Gambaran klinik dan resistensi insulin pada perlemakan hepatitis non-alkoholik / non-alcoholic steatohepatitis (NASH) = Clinical pictures & insulin resistance in non-alcoholic steatohepatitis (NASH)

C. Rinaldi A. Lesmana, author

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=112212&lokasi=lokal>

---

### Abstrak

#### Latar Belakang

Perlemakan hepatitis non-alkoholik (NASH) merupakan bagian dari spektrum penyakit perlemakan hati non-alkoholik (NAFLD) yang dimulai dari perlemakan hati murni dan bisa berlanjut menjadi sirosis hati. Hipotesis terjadinya NASH hingga saat ini adalah teori Two Hit. Dikatakan bahwa sindrom resistensi insulin (obesitas, DM tipe II, dan dislipidemi) memegang peranan penting dalam terjadinya NASH. Sampai saat ini studi tentang resistensi insulin pada NASH belum pernah dilaporkan di Indonesia.

#### Tujuan Penelitian

Mendapatkan gambaran klinik dan besar kejadian resistensi insulin pada penderita NASH.

#### Desain Penelitian

Studi ini merupakan studi observasional yang bersifat deskriptif-analitik dengan desain potong lintang perbandingan.

#### Pasien dan Metode

Didapatkan 30 pasien yang berobat ke poliklinik hepatologi di beberapa Rumah Sakit di Jakarta dengan perlemakan hati (dari hasil USG) yang bersedia menjalani pemeriksaan antropometrik, dan pemeriksaan darah perifer untuk kadar gula puasa, profil lipid, fungsi hati dan insulin puasa. Penderita dengan riwayat minum alkohol, narkoba, serologi virus hepatitis positif, dan ANA positif dieksklusi.

Gambaran NASH diperiksa oleh tiga ahli patologi anatomi (menurut kriteria Brunt). Untuk analisa resistensi insulin (dengan reagen insulin ultrasensitif) diperiksa pada 30 penderita NASH yang dibandingkan dengan 30 kontrol normal dengan metode ELISA. Untuk analisa statistik digunakan program SPSS untuk Window versi 12 dengan uji statistik nonparametrik (Mann-Whitney).

#### Hasil

Dari 30 penderita NASH, hipertensi ditemukan pada 8 (26,7%) subyek, dispepsia pada 14 (46,7%) subyek, berat badan berlebih pada 6 (20%) subyek, obesitas pada 19 (63,3%) subyek, gangguan fungsi hati pada 20 (67%) subyek, hipertrigliseridemi pada 19 (63,3%) subyek, DM tipe II pada 5 (16,7%) subyek, dan sindroma metabolik pada 9 (30%) subyek. HOMA-IR didapatkan lebih tinggi pada kelompok subyek dengan NASH bila dibandingkan kontrol normal ( $p = 0,001$ ). Resistensi insulin ditemukan pada 16 (53,3%) dari 30 penderita NASH (dengan batas HOMA-IR  $< 3,02$ ).

#### Simpulan

Kebanyakan penderita NASH memiliki minimal satu dari komponen metabolik. Resistensi insulin mungkin mempunyai peran pada penderita NASH. Dibutuhkan sampel lebih banyak dan penelitian lebih lanjut mengenai resistensi insulin di hati.

<hr>

## Backgrounds

Non-Alcoholic Steatohepatitis (NASH) is a spectrum of Non-Alcoholic Fatty Liver Disease (NAFLD) which is starting from pure fatty liver (steatosis) to hepatic cirrhosis. Most of studies about prevalence of NASH come from Western countries. The recent hypothesis of NASD which is accepted until now is the Two Hit Theory. It was noted that insulin resistance syndrome (obesity, diabetes, dyslipidemia) has an important role in NAFLD especially in progression to become NASH. In Indonesia, study about insulin resistance in NASH has not been reported.

## Aims of the study

To know the clinical pictures and the prevalence of insulin resistance in subjects with NASH.

## Study Design

This study was a descriptive-analytic with a comparative cross-sectional design. Patients and Methods

There were 30 outpatients who come to liver clinic in several hospitals in Jakarta, with a diagnosis of fatty liver (ultrasound examination) underwent examination of anthropometric measurement, and blood tests for fasting glucose, lipid profile, liver function and fasting insulin level. Subjects with a history of alcohol intake, drug abuser, HBsAg positive, anti I-ICV positive and ANA positive were excluded. A liver biopsy proven NASH was confirmed from every subject (according to Brunt criteria), which has been examined by three experienced pathologists. The insulin resistance measured (with ELISA method) in 30 subjects with NASH by 1-IOMA-IR was compared with 30 normal controls. All analyses were performed with SPSS for Windows version 12 A significance level of 5% was used with non-parametric test (Mann-Whitney).

## Results

From 30 subjects with NASH, hypertension was found in 8 (26.7%) subjects, dyspepsia was found in 14 (46.7%) subjects, overweight was found in 6 (20%) subjects, obesity was found in 19 (63.3%) subjects, abnormal liver function tests was found in 20 (67%) subjects, hypertriglyceridemia was found in 19 (63.3%) subjects, DM type II was found in 6 (16.7%) subjects, and metabolic syndrome was found in 9(30%) subjects. HOMA-IR was found higher in 30 subjects with NASH compared to 30 normal controls ( $p=0.001$ ). Insulin resistance was defined when HOMA-IR was more than 3.02. Insulin resistance was found in 16 (53.3%) from 30 subjects with NASH.

## Conclusions

Most subjects with NASH have at least one component of the metabolic syndrome. Insulin resistance might have a role in subjects with NASH. A larger sample was needed to support this study. Further study about hepatic insulin resistance is needed.