

INTISARI

PERBEDAAN PERUBAHAN PROFIL LIPID SERUM PADA PENDERITA SIROSIS HATI YANG DITERAPI DENGAN SIMVASTATIN 10 mg DIBANDINGKAN DENGAN SIMVASTATIN 20 mg

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Latar Belakang. Profil lipid serum menurun pada sirosis hati, akibat dari penurunan sintesis oleh hepatosit, dan penurunan profil lipid ini berhubungan dengan derajat severitas sirosis. Pemberian simvastatin pada pasien sirosis hati diketahui memperbaiki disfungsi endotel pada pembuluh darah hati, menurunkan tingkat fibrosis dan hipertensi portal sehingga diharapkan memperbaiki fungsi sintesisnya. Pemberian simvastatin 20mg selama 1 bulan pada sirosis hati terbukti dapat menurunkan hipertensi portal tetapi masih menurunkan kadar kolesterol dan trigliserid bermakna. Pemberian simvastatin dengan dosis lebih rendah diharapkan menurunkan kadar lipid lebih rendah dengan efek samping lebih kecil. Pada kadar lipid rendah, terjadi peningkatan mortalitas penyakit non kardiovaskuler.

Tujuan Penelitian. Mengetahui perubahan profil lipid serum pada pasien sirosis hati yang diterapi dengan simvastatin 10mg dibandingkan 20mg selama 3 bulan.

Metode. Uji klinis dilakukan secara acak tersamar ganda pada pasien sirosis hati di RSUP Dr. Sardjito Yogyakarta Januari hingga Maret 2018 yang memenuhi kriteria inklusi dan eksklusi. Subyek dirandomisasi menjadi grup yang diberi perlakuan simvastatin 10 mg dan grup simvastatin 20 mg selama 3 bulan. Dilakukan pemeriksaan profil lipid tiap bulan selama 3 bulan dan pemantauan efek samping selama perlakuan. Analisis data menggunakan uji T tidak berpasangan dan *repeated measure* anova.

Hasil Penelitian. Dilakukan analisis statistik terhadap grup simvastatin 10 mg (n=20 subyek) dan grup simvastatin 20 mg (n=17 subyek). Perubahan profil lipid awal dengan akhir bulan grup simvastatin 10 mg dibandingkan grup simvastatin 20 mg untuk kolesterol total $-10,71 \pm 24,12$ vs $-16,76 \pm 24,90$ (p=0,453), HDL $-2,43 \pm 12,78$ vs $-3,12 \pm 15,19$ (p=0,886), LDL $-27,43 \pm 19,74$ vs $-37,12 \pm 30,04$ (p=0,240), trigliserida $-1,48 \pm 22,39$ vs $5,24 \pm 49,71$ (p=0,611). Setelah akhir bulan 1, terdapat kecenderungan peningkatan kadar kolesterol total walaupun secara statistik tidak bermakna dan penurunan LDL yang lebih sedikit tiap bulannya hingga akhir bulan 3 pada masing-masing grup.

Kesimpulan. Tidak didapatkan perbedaan perubahan kadar profil lipid serum baik kolesterol total, HDL, LDL, maupun trigliserida secara bermakna pada penderita sirosis hati yang diterapi dengan simvastatin 10 mg per hari dibandingkan dengan simvastatin 20 mg per hari selama 3 bulan.

Kata Kunci : Sirosis hati, simvastatin, kolesterol total, *low density lipoprotein* (LDL), *high density lipoprotein* (HDL), trigliserida

ABSTRACT

THE DIFFERENCE OF SERUM LIPID PROFILE CHANGES IN PATIENTS WITH LIVER CIRRHOSIS AFTER TREATMENT OF SIMVASTATIN 10 mg COMPARED TO SIMVASTATIN 20 mg

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Background. Serum lipid profile decreases in liver cirrhosis due to decreased of lipid synthesis by hepatocyte and this decreased of liver profile is related with the severity degree of cirrhosis. The administration of simvastatin in patients with liver cirrhosis has been acknowledged to repair endothelial dysfunction in liver vessels, decrease fibrotic formation, and decrease portal hypertension that is expected to repair the lipid synthesis in liver. The administration simvastatin 20 mg for a month in liver cirrhosis has been proven to decrease portal hypertension while still be able to decrease cholesterol and triglyceride level significantly. Administration of simvastatin with lower doses is expected to reduce lower lipid levels with less side effects. In low lipid level, there is increased of non cardiovascular mortality.

Aims. To observe the change of serum lipid profile in patients with liver cirrhosis who are treated with simvastatin 10 mg compared to those who are treated with simvastatin 20 mg for 3 months.

Methods. This was a double blind randomized trial in patients with liver cirrhosis in Dr Sardjito Hospital Yogyakarta from January 2018 to March 2018 who met the inclusion and exclusion criteria. Subjects were randomized into two groups. One group received Simvastatin 10 mg daily and the other received Simvastatin 20 mg daily for 3 months. Lipid profile was examined monthly for 3 months and the adverse effects were observed during trial. Data was analyzed using unpaired t-test and repeated measure ANOVA.

Results. Statistical analysis was examined in patients who received simvastatin 10 mg (n = 20) and simvastatin 20 mg (n = 17). The change of lipid profile from the beginning of the month to end of month between 10 mg of Simvastatin group and 20 mg of Simvastatin group were compared and resulting in $-10,71 \pm 24,12$ vs $-16,76 \pm 24,90$ (p=0,453) for total cholesterol level, $-2,43 \pm 12,78$ vs $-3,12 \pm 15,19$ (p=0,886) for HDL level, $-27,43 \pm 19,74$ vs $-37,12 \pm 30,04$ (p=0,240) for LDL level, and $-1,48 \pm 22,39$ vs $5,24 \pm 49,71$ (p=0,611) for triglyceride level respectively. By the end of first month, total cholesterol tend to insignificantly increase and LDL level decrease fewer in each group.

Conclusion. There was no significant difference in change of serum lipid profile level in patients with liver cirrhosis who are treated with simvastatin 10 mg daily compared to those who received simvastatin 20 mg daily for 3 months.

Keywords : Liver cirrhosis, simvastatin, total cholesterol, *low density lipoprotein* (LDL), *high density lipoprotein* (HDL), triglyceride