Perubahan status fungsi hati status nutrisi kadar 3 hidroksi butirat darah dan keseimbangan nitrogen pada pasien sirosis hati yang menjalankan ibadah puasa di minggu ke empat ramadhan dan 4 minggu pasca ramadhan = Changes of liver functional status nutritional status serum 3 hidroxy butyric and nitrogen balance in cirrhotic patients during fasting at fourth week of ramadhan and four weeks after ramadhan

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Abstrak

Pendahuluan: Prevalensi sirosis tinggi di Indonesia yang mayoritas populasinya adalah muslim. Pada saat menjalani puasa Ramadhan yang merupakan kewajiban umat muslim terjadi berbagai proses metabolik yang dapat mempengaruhi keadaan klinis, nutrisi dan bokimiawi pasien sirosis hati . Penelitian tentang efek puasa Ramadhan pada pasien sirosis hati di Indonesia belum pernah dilakukan.
Tujuan: Untuk mengetahui perubahan status nutrisi, status fungsi hati, pembentukan badan keton dan keseimbangan nitrogen pada pasien sirosis hati yang menjalankan puasa Ramadhan.
Metode: Penelitian "pre dan post" dengan consecutive sampling dilakukan pada pasien sirosis hati yang berpuasa Ramadhan. Penilaian status fungsional hati dengan skor Child-Pugh (CP), antropometrik dengan mengukur indeks massa tubuh (IMT), ketebalan triceps skinfold (TSF) menggunakan kaliper Holtain, mid-arm muscle circumference, asupan makanan 24 jam, kadar 3--hidroksi butirat darah, serta pengukuran ekskresi nitrogen urin 24 jam, dilakukan pada minggu ke-4 Ramadhan dan 4 minggu pasca Ramadhan.
Hasil: Didapatkan 24 pasien sirosis hati, 16 orang (66,7%) laki-laki dan 8 orang (33,3%) perempuan yang menjalankan puasa Ramadhan dengan rerata umur 60 tahun. Etiologinya virus hepatitis B 54,2%, hepatitis C 20,8%, dan penyebab yang tidak diketahui 25%. Status fungsi hati CP A 19 orang (79,2%), CP B 2 orang (8,3%), dan CP C 3 orang (12,5%). Tidak ada perubahan skor CP pasca Ramadhan. Rerata (SD) IMT, ketebalan TSF, MAMC saat puasa Ramadhan berturut-turut adalah 25,112 (4,05) kg/m2, 7,40 (3,61) mm, 25,77 (3,077) cm dan pasca Ramadhan berturut-turut 25,25 (4,01) kg/m2 (p = 0,438), 7,89 (4,33) mm (p=0,024), 25,96 (3,42) cm (p=0,228). Kadar 3--hidroksi butirat darah saat Ramadhan adalah 0,14 (0.07) mmol/L, pasca Ramadhan 0,11 (0.09) mmol/L (p=0,166). Rerata (SD) keseimbangan nitrogen saat puasa Ramadhan 2,44 (2,93) gram/24 jam, pasca Ramadhan 0,51 (3,16) gram/24 jam (p=0,037).
Simpulan: Tidak ada pebedaan status fungsi hati dan kadar 3--hidroksi butirat darah pada saat dan pasca Ramadhan. Indeks massa tubuh dan ketebalan TSF membaik pasca Ramadhan. Keseimbangan nitrogen lebih positif saat Ramadhan. Puasa Ramadhan tampaknya tidak membahayakan pasien sirosis hati terutama pada kondisi fungsi hati yang terkompensasi.
.....Introduction: The prevalence of cirrhosis is high in Indonesia which most of are predominantly moslems. There were various metabolic changes happened in Ramadhan fasting that obligated for moslems that could influence clinical, nutritional, and biochemistry condition of cirrhotic patients.The study of effects of Ramdhan fasting in cirrhotics patients (pts) in Indonesia has never been investigated.
Aim of Study: To evaluate changes of liver functional status, nutritional status, serum 3--hidroxy butyric and nitrogen balance in cirrhotic patients during Ramadhan fasting.
Methods: This was a ‘pre and post’ study with consecutive sampling conducted in cirrhotic patients during

Ramdhan fasting. Assessment of liver functional status by Child-Pugh (CP) score, anthropometric by measuring body mass index (BMI), triceps skinfold (TSF) thickness measured by Holtain caliper, and mid-arm muscle circumference, 24-hours food intake, serum 3--hidroxi butyric, and 24-hours urine nitrogen excretion, were performed at fourth week and four weeks after the end of Ramadhan fasting.
Results: Of 24 cirrhotic patients, 16 male (66,7%) dan 8 female (33,3%) who performed Ramadhan fasting were 60 years old in this study. Etiologies were hepatitis B viral (54,2%), hepatitis C (20,8%), and unknown (25%). Liver functional status were CP A 19 pts (79,2%), CP B 2 pts (8,3%), and CP C 3 pts (12,5%). No changes of this status after Ramadhan. Mean (SD) of BMI, TSF thickness, MAMC at Ramadhan concecutively were 25,112 (4,05) kg/m2, 7,40 (3,61) mm, 25,77 (3,077) cm and after Ramadhan 25,25 (4,01) kg/m2 (p = 0,438), 7,89 (4,33) mm (p=0,024), 25,96 (3,42) cm (p=0,228). Mean (SD) of serum 3--hidroxy butyric at Ramadhan was 0,14 (0.07) mmol/L, after Ramadhan 0,11 (0.09) mmol/L (p=0,166). Mean (SD) of nitrogen balance at Ramadhan was 2,44 (2,93) gram/24 hour, after Ramadhan 0,51 (3,16) gram/24 hour (p=0,037).
Conclusion: No difference of liver functional status and serum 3--hidroxy butyric during and after Ramadhan. Body mass index and triceps skinfold were better after Ramadhan. Nitrogen balance was more positive during Ramadhan compared to after Ramadhan. Ramadhan fasting is likely harmless especially in compensated liver cirrhosis.