

## Hubungan antara kekuatan genggam tangan dengan skor child pugh dan massa otot pada sirosis hati = The correlation between hand grip strength with child pugh score and muscle mass in liver cirrhosis

Amanda Trixie Hardigaloeh, author

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### Abstrak

**ABSTRAK**  
Latar Belakang : Malnutrisi merupakan faktor independen yang berhubungan dengan morbiditas, mortalitas dan tingginya biaya pengobatan sirosis hati. Kekuatan Genggam Tangan (KGT) merupakan suatu metode yang sering digunakan untuk mendeteksi malnutrisi dan menilai prognosis pasien. Hubungan KGT dengan Skor Child Pugh (CP) dan massa otot masih dalam kontroversi. Indonesia sampai saat ini belum memiliki data tersebut

Metode : Studi potong lintang pada pasien sirosis hati di poliklinik hepatobilier RSCM dari Februari-Juni 2015. Status nutrisi dinilai berdasarkan KGT. Massa otot diukur menggunakan bioimpedans. Analisis statistik menggunakan uji korelasi spearman

Hasil : Terdapat 115 pasien yang kontrol di poliklinik hepatobilier RSCM, 112 pasien memenuhi kriteria penelitian, terdiri dari 79 laki-laki dan 33 perempuan. Usia pasien rata-rata  $54,15 \pm 10,55$  tahun, median skor CP 6(5-13) dengan median KGT 26(11-50) kgF, rata-rata massa otot  $44,43 \pm 8,12$  kg. Median asupan energi 1334,82(604,75-3023,7) kkal, median protein 45,87(19-114,5) gram. Prevalensi malnutrisi berdasarkan KGT ditemukan sebanyak 33%. Kekuatan genggam tangan tidak berkorelasi dengan skor CP ( $p = 0,046$ ,  $r = -0,19$ ) namun berkorelasi dengan massa otot ( $p < 0,001$ ,  $r = 0,70$ ) Simpulan Terdapat 33% kasus malnutrisi berdasarkan KGT pada pasien sirosis rawat jalan. KGT tidak berkorelasi dengan skor Child Pugh namun berkorelasi dengan massa otot pasien sirosis hati.

**ABSTRACT**  
Background : Malnutrition is independent factor related to morbidity, mortality and high cost of treatment in liver cirrhosis. Hand grip strength (HGS) is one of the method use for malnutrition detection and prognosis evaluation. The correlation of HGS with liver function (Child Pugh or CP score) and muscle mass is controversial. These important evaluation is not yet available in Indonesia.

Method : This is a cross-sectional study in liver cirrhosis patients at Hepatobiliary clinic of Cipto Mangunkusumo Hospital from February to June 2015. Nutritional status was assessed by HGS. Muscle mass was obtained from bioimpedance. Data were analyzed using Spearman correlation test.

Results : There were 115 patients liver cirrhosis at Hepatobiliary clinic of Cipto Mangunkusumo Hospital, 112 patients who fit the inclusion criteria, consisted of 79 men and 33 women with mean age  $54,15 \pm 10,55$  years, median CP score 6(5-13) with median HGS 26 (11-50) kgF, mean muscle mass  $44,43 \pm 8,12$  kg. The median intake of energy 1334,82(604,75-3023,7) kkal, median protein 45,87(19-114,5) gram. Prevalence of malnutrition according HGS was 33%. Hand grip strength is not correlated with CP score ( $p = 0,046$ ,  $r = -0,19$ ) however it is correlated with muscle mass ( $p < 0,001$ ,  $r = 0,70$ ) Conclusion There are 33% malnutrition cases based on HGS in out patient liver cirrhosis. There is no correlation between hand grip strength with Child

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