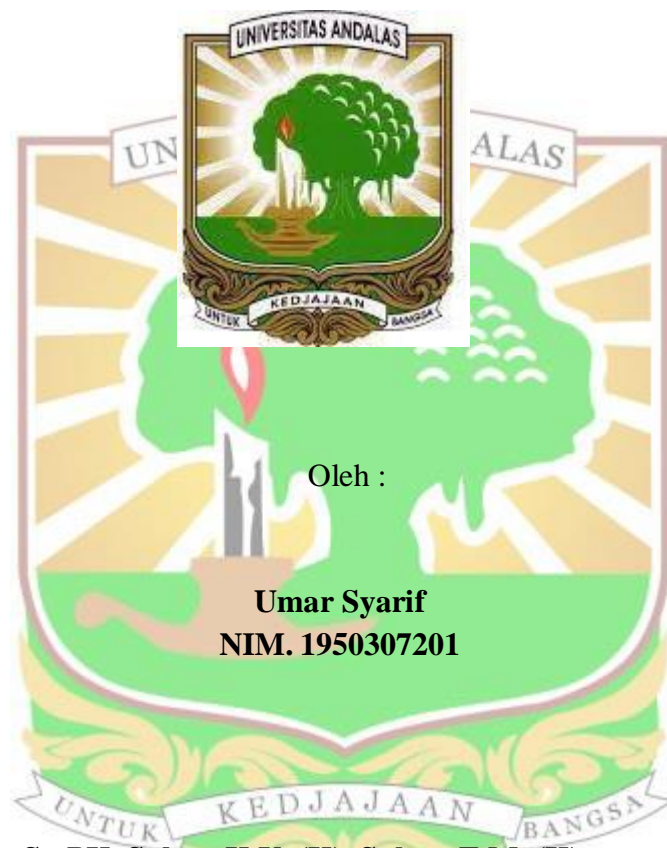Tesis

KORELASI SKOR AGAP DAN INDEKS FIBROSIS-4 DENGAN *FIBROSCAN* PADA PASIEN HEPATITIS B KRONIK YANG MENGALAMI FIBROSIS HATI

Oleh :

Umar Syarif
NIM. 1950307201

Pembimbing:
Prof. dr. Rismawati Yaswir, Sp.PK, Subsp. K.V. (K), Subsp. E.M. (K)
Dr. dr. Rikarni, Sp.PK, Subsp. H.K. (K), Subsp. Onk.K. (K)

PROGRAM STUDI PATOLOGI KLINIS PROGRAM SPESIALIS FAKULTAS KEDOKTERAN UNAND/RSUP DR. M. DJAMIL PADANG
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ABSTRAK

Latar Belakang: Hepatitis B kronik merupakan peradangan hati kronik yang disebabkan oleh virus hepatitis B yang dapat menyebabkan fibrosis hati. Derajat fibrosis hati sangat membantu menentukan progresivitas dan pengobatan dini yang akurat pada pasien hepatitis B kronik. Metode non-invasif yang dikembangkan adalah *fibroscan*, tetapi tidak tersedia di semua fasilitas kesehatan. Penanda skor AGAP dan indeks fibrosis-4 (Fib-4) dikembangkan karena lebih murah, mudah dan sederhana. Penelitian ini bertujuan untuk mengetahui korelasi skor AGAP, dan indeks Fib-4 dengan *fibroscan* pada pasien hepatitis B kronik yang mengalami fibrosis hati.

Metode: Penelitian analitik dengan rancangan potong lintang dilakukan terhadap 67 pasien hepatitis B kronik yang mengalami fibrosis hati di RSUP Dr. M. Djamil Padang pada bulan September 2022 sampai Agustus 2023. Pasien hepatitis B kronik yang melakukan pemeriksaan *fibroscan* dengan metode *transient elastography*, AST dan ALT metode NADH (*without* P-5'-P), GGT metode *gamma glutamyl-3-carboxy-4-4-nitroanilide*, dan trombosit metode optikal. Data dianalisis dengan uji korelasi Pearson, bermakna jika $p < 0,05$, dilanjutkan dengan uji regresi linier multivariat.

Hasil: Rerata umur subjek penelitian adalah 46 (9) tahun. Sebanyak 63% subjek penelitian adalah laki-laki. Rerata skor AGAP = 13,41 (8,1), indeks Fib-4 = 3,29 (0,9) dan *fibroscan* = 8,0 (1,5) kPa. Analisis korelasi Pearson skor AGAP memiliki korelasi positif sangat kuat dengan *fibroscan* (r= 0,832; p <0,001) dan korelasi positif kuat indeks Fib-4 dengan *fibroscan* (r= 0,774; p <0,001)**.** Hasil analisis regresi linier multivariat didapatkan skor AGAP merupakan parameter yang paling berkorelasi dengan *fibroscan* pada pasien hepatitis B kronik yang mengalami fibrosis hati dibandingkan indeks Fib-4.

Simpulan: Korelasi skor AGAP dengan *fibroscan* lebih kuat dibandingkan korelasi indeks Fib-4 dengan *fibroscan* pada pasien hepatitis B kronik yang mengalami fibrosis hati.

Kata Kunci: *fibroscan*, hepatitis B kronik, fibrosis hati, skor AGAP, indeks Fib-4

CORRELATION OF AGAP SCORES AND FIBROSIS-4 INDEX WITH FIBROSCAN IN CHRONIC HEPATITIS B PATIENTS WHO EXPERIENCE LIVER FIBROSIS

ABSTRACT

Background: *Chronic hepatitis B is chronic inflammation of the liver caused by the hepatitis B virus which can cause liver fibrosis. The degree of liver fibrosis is very helpful in determining disease progression and accurate early treatment in chronic hepatitis B patients. Fibroscan is a non-invasive method to measure fibrosis in the liver, but it is not widely available. The AGAP score and fibrosis index-4 (Fib-4) markers were developed because they are both inexpensive and more feasible in healthcare facilities. This study aims to determine the correlation between the AGAP score and the Fib-4 index with fibroscan in chronic hepatitis B patients who experience liver fibrosis.*

Methods: *Analytical research with a cross-sectional design was conducted on 67 chronic hepatitis B patients who experienced liver fibrosis at RSUP Dr. M. Djamil Padang from September 2022 to August 2023. Chronic hepatitis B patients who underwent fibroscan examination using the transient elastography method, AST and ALT NADH method (without P-5'-P), GGT gamma glutamyl-3-carboxy-4 method - 4-nitroanilide, and platelets optical methods. Data were analyzed using the Pearson correlation test and was considered significant if p <0.05, followed by a multivariate linear regression test.*

Results: *The mean age of the research subjects was 46 (9) years. A total of 63% of the subjects were male. The mean AGAP score was 13.41 (8.1), Fib-4 index was 3.29 (0.9) and the mean fibroscan result was 8.0 (1.5) kilopascals (kPa). Pearson correlation analysis of the AGAP score had a very strong positive correlation with fibroscan (r= 0.832; p <0.001) and a strong positive correlation between Fib-4 index and fibroscan (r= 0.774; p <0.001) was also found. The results of multivariate linear regression analysis showed that the AGAP score was the parameter that was most correlated with fibroscan in chronic hepatitis B patients who experienced liver fibrosis compared to the Fib-4 index.*

Conclusion: *The correlation of the AGAP score with fibroscan is stronger than the correlation of the Fib-4 index with fibroscan in chronic hepatitis B patients who experience*

liver fibrosis.

Keywords: *fibroscan, chronic hepatitis B, liver fibrosis, AGAP score, Fib-4 index*