

KORELASI DERAJAT KEPARAHAN CEDERA HEPAR BERDASARKAN KLASIFIKASI AMERICAN ASSOCIATION FOR THE SURGERY OF TRAUMA (AAST) PADA PEMERIKSAAN CT SCAN ABDOMEN DENGAN NILAI ENZIM TRANSAMINASE

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INTISARI

Latar Belakang: Hepar merupakan organ kedua tersering mengalami cedera pada trauma tumpul abdomen dan menjadi penyebab kematian utama. *CT scan* merupakan standar emas dalam mendeteksi cedera hepar, tetapi keberadaan *CT scan* masih terbatas sedangkan pemeriksaan enzim transaminase (ALT dan AST) lebih mudah diakses dan terjangkau.

Tujuan: Penelitian ini bertujuan untuk mengetahui korelasi antara derajat keparahan cedera hepar berdasarkan klasifikasi AAST pada pemeriksaan *CT scan* abdomen dengan nilai enzim transaminase.

Metode: Penelitian *cross sectional* ini dilakukan di RSUP Dr. Sardjito pada Juli-Agustus 2023 dengan mengambil data sekunder pasien cedera hepar periode Juni 2017-Juni 2023. Seluruh subjek pada periode tersebut diambil. Derajat keparahan cedera hepar dari pemeriksaan *CT scan* abdomen dan nilai enzim transaminase (ALT dan AST) dari hasil pemeriksaan laboratorium sejumlah 35 subjek yang memenuhi kriteria inklusi dan eksklusi, selanjutnya dianalisis menggunakan uji *Spearman*. Data diambil dari PACS dan instalasi rekam medis RS.

Hasil: Analisis bivariat dengan uji *Spearman* menunjukkan korelasi yang signifikan antara derajat keparahan cedera hepar dengan nilai enzim transaminase ALT ($p < 0,001$, $r = 0,645$) dan AST ($p = 0,001$, $r = 0,547$).

Kesimpulan: Terdapat korelasi positif antara derajat keparahan cedera hepar berdasarkan klasifikasi *American Association for the Surgery of Trauma* (AAST) pada pemeriksaan *CT scan* abdomen dengan nilai enzim transaminase, yaitu semakin tinggi derajat cedera hepar, maka semakin tinggi nilai enzim transaminase yang dihasilkan.

Kata Kunci: Cedera hepar, enzim transaminase, AAST.

**CORRELATION BETWEEN THE SEVERITY OF LIVER INJURIES BASED ON
THE AMERICAN ASSOCIATION FOR THE SURGERY OF TRAUMA (AAST)
CLASSIFICATION IN ABDOMINAL CT SCAN EXAMINATION WITH
TRANSAMINASE ENZYME**

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ABSTRACT

Background: Liver is the second most commonly injured organ in blunt abdominal trauma and is a leading cause of mortality. CT scan is the gold standard for detecting liver injuries, but access to CT scans is limited, while the assessment of transaminase enzymes (ALT and AST) is more accessible and affordable.

Objective: This study aims to determine the correlation between the severity of liver injury based on the AAST classification in abdominal CT scan examinations and transaminase enzyme.

Methods: This cross-sectional study was conducted at Dr. Sardjito Hospital in July-August 2023, by collecting secondary data from liver injury patients within the period of June 2017 to June 2023. All subjects during this period were included in the study. The severity of liver injury was assessed based on abdominal CT scan results, and transaminase enzyme values (ALT and AST) were obtained from laboratory examinations for a total of 35 subjects who met the inclusion and exclusion criteria. Subsequently, statistical analysis was performed using the Spearman test. Data were extracted from the hospital's Picture Archiving and Communication System (PACS) and medical records department.

Results: Bivariate analysis with the Spearman test showed a significant correlation between the severity of liver injury and the transaminase enzyme values ALT ($p < 0.001$, $r = 0.645$) and AST ($p = 0.001$, $r = 0.547$).

Conclusion: There was a positive correlation between the severity of liver injury based on the American Association for the Surgery of Trauma (AAST) classification in abdominal CT scan examinations and transaminase enzyme values. This means that as the degree of liver injury increases, the transaminase enzyme values produced also increase.

Keywords: liver injury, transaminase enzyme, AAST.