

KORELASI ANTARA VOLUME TUMOR PADA PEMERIKSAAN CT SCAN TORAKS DENGAN VOLUME EFUSI PLEURA PASIEN ADENOKARSINOMA PARU

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INTISARI

Latar Belakang: Kanker paru merupakan penyebab utama insiden dan kematian akibat kanker secara global dengan adenokarsinoma sebagai jenis kanker paru terbanyak. Ukuran tumor, diameter terbesar tumor maupun volume tumor berdasarkan pemeriksaan CT *scan* toraks pasien adenokarsinoma paru faktor penting dalam prognosis dan pertimbangan stadium sistem klasifikasi TNM. Efusi pleura sering dikaitkan dengan adenokarsinoma paru, yang menunjukkan progresivitas penyakit. Penelitian menunjukkan peran prognostik signifikan efusi pleura pada kanker paru NSCLC dengan penurunan overall survival.

Tujuan: Penelitian ini bertujuan untuk mengetahui korelasi antara volume tumor pada pemeriksaan CT *scan* toraks dengan volume efusi pasien adenokarsinoma paru

Metode: Penelitian cross sectional ini dilakukan di RSUP Dr. Sardjito pada September 2024 dengan mengambil data sekunder pasien adenokarsinoma paru periode Januari 2022-Juni 2024. Data diambil dari PACS dan rekam medis elektronik RS. Volume tumor dan volume efusi pleura dinilai dari pemeriksaan CT *scan* toraks sejumlah 92 subjek yang memenuhi kriteria inklusi. Dilakukan uji normalitas dengan *Kolmogorof smirnov* selanjutnya dianalisis menggunakan uji Spearman.

Hasil: Analisis bivariat dengan uji Spearman menunjukkan tidak ada korelasi yang signifikan antara volume tumor dengan volume efusi pleura ($p=0,324$, $p=0.104$). Pada analisis multivariat lokasi tumor dan nodul satelit mempengaruhi volume efusi pleura

Kesimpulan: Tidak terdapat korelasi signifikan antara volume tumor pada pemeriksaan CT *scan* toraks dengan volume efusi pleura pasien adenokarsinoma paru

Kata Kunci: Adenokarsinoma paru, volume tumor, volume efusi pleura, CT *scan* toraks

CORRELATION BETWEEN TUMOR VOLUME ON CHEST CT SCAN AND PLEURAL EFFUSION VOLUME PATIENTS WITH LUNG ADENOCARCINOMA

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ABSTRACT

Background: Lung cancer is the leading cause of cancer incidence and mortality globally, with adenocarcinoma being the most common type of lung cancer. Tumor size, the largest diameter of the tumor, and tumor volume based on chest CT scans are important factors in the prognosis and staging considerations in the TNM classification system. Pleural effusion is often associated with lung adenocarcinoma, indicating disease progression. Studies have shown a significant prognostic role of pleural effusion in NSCLC with decreased overall survival.

Objective: This study aims to determine the correlation between tumor volume on chest CT scans and pleural effusion volume in patients with lung adenocarcinoma.

Methods: This cross-sectional study was conducted at Dr. Sardjito General Hospital in September 2024, using secondary data from patients with lung adenocarcinoma from January 2022 to June 2024. Data were obtained from PACS and electronic medical records. Tumor volume and pleural effusion volume were assessed from chest CT scans of 92 subjects meeting inclusion criteria. Normality tests were conducted using Kolmogorov-Smirnov, followed by analysis with Spearman's correlation test.

Results: Bivariate analysis using the Spearman test showed no significant correlation between tumor volume and pleural effusion volume ($p=0.324$, $\rho=0.104$). In multivariate analysis, tumor location and satellite nodules affect pleural effusion volume.

Conclusion: There is no significant correlation between tumor volume on chest CT scans and pleural effusion volume in patients with lung adenocarcinoma.

Keywords: Lung adenocarcinoma, tumor volume, pleural effusion volume, chest CT scan