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**Korelasi antara Timika Score Berdasarkan Radiografi Toraks dengan Derajat Keparahan Klinis Tuberkulosis Paru Berdasarkan Bandim Score**
Khairina, Prof. dr. Arif Faisal, Sp.Rad., Subsp. NKL (K), DHSM.; dr. Sri Retna Dwidanarti, Sp.Rad., Sp. Onk. Rad., Su
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# KORELASI ANTARA *TIMIKA SCORE* BERDASARKAN RADIOGRAFI TORAKS DENGAN DERAJAT KEPARAHAN KLINIS TUBERKULOSIS PARU BERDASARKAN *BANDIM SCORE*

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## ABSTRAK

**Latar belakang:** Tuberkulosis paru merupakan masalah kesehatan penting dengan beban morbiditas dan mortalitas tinggi, termasuk di Indonesia. Penilaian derajat keparahan penyakit diperlukan untuk membantu stratifikasi pasien, perencanaan terapi, dan pemantauan klinis. Radiografi toraks merupakan modalitas pencitraan yang luas tersedia dan dapat dinilai secara kuantitatif menggunakan *Timika Score*. Tujuan penelitian ini adalah untuk mengetahui korelasi antara *Timika Score* berdasarkan radiografi toraks dengan derajat keparahan klinis tuberkulosis paru berdasarkan *Bandim score*.

**Metode:** Penelitian ini merupakan penelitian korelatif dengan desain *cross sectional* menggunakan data retrospektif. Subjek penelitian adalah pasien tuberkulosis paru yang menjalani pemeriksaan radiografi toraks dan memiliki data klinis lengkap untuk penilaian *Bandim score*. *Timika Score* dihitung berdasarkan persentase keterlibatan lesi aktif pada radiografi toraks dan penambahan skor bila terdapat kavitas. Analisis dilakukan untuk menilai korelasi antara *Timika Score* dan *Bandim score*, serta hubungan karakteristik subjek dengan derajat keparahan klinis tuberkulosis paru.

**Hasil:** Sebanyak 90 subjek dianalisis dengan median usia 52 tahun, dominasi laki-laki sebanyak 61 pasien (67,8%), median IMT 19,4 kg/m², dan median Hb 11,0 g/dL. Riwayat merokok ditemukan pada 63 pasien (70,0%), sedangkan hipertensi, diabetes, dan HIV masing-masing ditemukan pada 18 pasien (20,0%), 12 pasien (13,3%), dan 12 pasien (13,3%). IMT ($p < 0,001$), kadar Hb ($p = 0,007$), dan hipertensi ($p < 0,001$) berkorelasi signifikan dengan derajat keparahan klinis tuberkulosis paru. Tidak terdapat korelasi signifikan antara *Timika Score* dan *Bandim score* ($p = 0,075$; $r = 0,189$).

**Kesimpulan:** Tidak terdapat korelasi antara *Timika Score* berdasarkan radiografi toraks dengan derajat keparahan klinis tuberkulosis paru berdasarkan *Bandim score*.

**Kata kunci:** *Tuberculosis, Pulmonary*; *Radiography, Thoracic*; *Disease Severity*.

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# *CORRELATION BETWEEN THE TIMIKA SCORE BASED ON CHEST RADIOGRAPHY AND THE CLINICAL SEVERITY OF PULMONARY TUBERCULOSIS BASED ON THE BANDIM SCORE*

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## *ABSTRACT*

***Background**: Pulmonary tuberculosis is a significant health problem with a high burden of morbidity and mortality, including in Indonesia. Assessment of disease severity is necessary to assist patient stratification, therapy planning, and clinical monitoring. Chest radiography is a widely available imaging modality that can be quantitatively assessed using the Timika Score. The purpose of this study was to determine the correlation between the Timika Score based on chest radiography and the clinical severity of pulmonary tuberculosis based on the Bandim score.*

***Methods**: This is a correlative study with a cross-sectional design using retrospective data. Subjects were patients with pulmonary tuberculosis who underwent chest radiography and had complete clinical data for Bandim score assessment. The Timika Score is calculated based on the percentage of active lesion involvement on chest radiography and an additional score if cavities are present. Analysis was performed to assess the correlation between the Timika Score and the Bandim Score, as well as the relationship between subject characteristics and the clinical severity of pulmonary tuberculosis.*

***Results**: A total of 90 subjects were analyzed, with a median age of 52 years, a male predominance (61 patients (67.8%), a median BMI of 19.4 kg/m², and a median Hb of 11.0 g/dL. A history of smoking was found in 63 patients (70.0%), while hypertension, diabetes, and HIV were found in 18 patients (20.0%), 12 patients (13.3%), and 12 patients (13.3%), respectively. BMI ($p < 0.001$), Hb levels ($p = 0.007$), and hypertension ($p < 0.001$) significantly correlated with the clinical severity of pulmonary tuberculosis. There was no significant correlation between the Timika Score and the Bandim score ($p = 0.075$; $r = 0.189$).*

***Conclusion**: There was no correlation between the Timika Score based on chest radiography and the clinical severity of pulmonary tuberculosis based on the Bandim score.*

***Keywords**: Tuberculosis, Pulmonary; Radiography, Thoracic; Disease Severity.*