

# Hubungan kapasitas difusi paru dengan derajat lesi berdasarkan HRCT toraks pada pasien bekas TB di RSUP Persahabatan = Lung diffusion capacity and lung abnormality on HRCT thorax in post primary TB at Persahabatan Hospital

Christian Febriandri, author

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## Abstrak

Latar belakang: Pasien bekas TB yang telah diobati akan mengalami perubahan struktur anatomi paru permanen sehingga dapat meningkatkan risiko kejadian gejala sisa. Gejala sisa yang terjadi dapat meninggalkan lesi di paru dan ekstra paru. Pada lesi paru biasanya diawali dengan perubahan struktur bronkial dan parenkim paru seperti distorsi bronkovaskuler, bronkietaksis, emfisematus dan fibrosis. Fungsi paru pada pasien 6 bulan setelah menyelesaikan pengobatan TB kategori I ditemukan nilai tes fungsi paru cenderung lebih rendah walapun sudah menyelesaikan obat anti tuberculosis (OAT) selama 6 bulan.

Metode: penelitian menggunakan metode potong lintang pada 65 pasien yang mendapatkan OAT lini I di Poli Paru RSUP persahabatan. Subjek penelitian akan menjalani pemeriksaan spirometri, DLCO, darah rutin dan HRCT toraks.

Hasil: Pada penelitian ini didapatkan median usia subjek 45 tahun dengan usia paling muda 18 tahun dan usia paling tua 60 tahun. Jenis kelamin pada penelitian ini didapatkan laki-laki sebanyak 33 subjek (51%). Sebanyak 66% subjek terdapat kelainan spirometri. Hasil spirometri dengan kelainan terbanyak yaitu gangguan restriksi dan obstruksi (campuran) pada 29 (44%) subjek, gangguan restriksi sebanyak 13 (21%) subjek, satu (1%) subjek gangguan obstruksi dan 22 (33%) subjek tidak ditemukan kelainan. Derajat lesi pada HRCT toraks menggunakan modifikasi Goddard score didapatkan derajat lesi ringan sebanyak 33 (51%), sedang 20 (31%), berat 8 (12%) subjek. Karakteristik lesi terbanyak pada parenkim paru secara berurutan fibrosis, kalsifikasi, bullae, retikuler opasitas, ground glass opacity (GGO), nodul, konsolidasi dan jamur. Lesi saluran napas yang terbanyak secara berurutan yaitu bronkietaksis, ateletaksis, dilatasi trachea. Gangguan kapasitas difusi terbanyak yaitu derajat ringan 25 (38%), moderate 22 (33%) dan berat 3 (5%). Pada penelitian ini ditemukan perbedaan bermakna antara derajat kelainan kapasitas difusi paru terhadap derajat lesi pada HRCT toraks dan terdapat risiko 8,68 kali (IK 95% 2,3-32,72)..

Kesimpulan: Terdapat hubungan bermakna antara derajat gangguan difusi paru terhadap derajat lesi pada HRCT toraks. Penurunan fungsi paru setelah menyelesaikan pengobatan TB dapat terjadi sehingga diperlukan pemeriksaan fungsi paru dan HRCT toraks secara berkala.

.....Background: Former TB infection patients will experienced changes in anatomical structure of the lung. Hence, it wil increased risk of sequelae. Sequelae can occur in extra pulmonary. Lung lesions changes in the structure of the bronchial and lung parenchyma such as bronchovascular distortion, bronchietacsis, emphysema and fibrosis. Lung functions in patients 6 months after completing TB treatment found that lung function test tend to be lower even after completing treatment for 6 months.

Methods: This studi used a cross-sectional method on 65 patients whom received anti tuberculosis drugs at Lung Polyclinic, Persahabatan Hospital. Research subjects will undergo spirometry, DLCO, blood test and HRCT thorax.

Results: In this study median age of subjects was 45 years. The youngest was 18 years and oldest was 60

years. Male population was 33 (51%) subjects. Total 66% subjects have lung function impairment. Result of spirometry showed mixed disorder in 29 (44%) subjects, restriction disorder in 12 (19%) subjects, one subjects with obstructive disorders and 22 (33%) subjects are normal. Based on Goddard modification score showed mild degree in 33 (51%) subjects, moderate 20 (31%) dan severe 8 (12%) subjects. The most characteristic lesions in the lung parenchymal were fibrosis, calcification, bullae, reticular opacity, GGO, nodules, consolidation and fungi. The most common airway lesions were bronchiectasis, atelectasis and tracheal dilatation. The most common lung diffusion impairment is mild 25 (38%), moderate 22 (33%) and severe 3 (5%). In this study found that there was a significant difference among lung diffusion impairment and degree of lesion based on HRCT thorax with OR 8.68 (CI 95% 2.3- 32.72).

Conclusion: There was significant relationship between lung diffusion impairment and degree of lesions based on HRCT thorax. Decrease lung function after completing TB treatment can occur so that routine lung function test and HRCT thorax imaging are recommended.