

# Karakteristik lesi tipikal asma bronkial pada high resolution computed tomography (HRCT) toraks serta hubungannya dengan derajat asma bronkial = Typical characteristic lesion of bronchial asthma on thorax (HRCT) and its relation with degree of bronchial asthma control

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## Abstrak

[<b>ABSTRAK</b><br>

Penyakit asma telah dikenal secara luas namun belum pernah dijelaskan secara mendetil. Tomografi komputer resolusi tinggi (HRCT) dapat mendeteksi struktur tidak normal pada penderita asma. Penelitian ini bertujuan untuk mendeskripsikan karakteristik lesi asma dan hubungannya dengan data klinis pada hasil Tes kontrol asma (ACT).

Penelitian dilakukan secara prospektif dengan metode potong lintang terhadap penderita asma yang berobat ke poli asma RSUP Persahabatan Jakarta selama bulan Januari ? Februari 2014, mereka kemudian di rujuk untuk menjalani pemeriksaan HRCT setelah pemeriksaan awal dan mengisi ACT.

Dari 34 kasus, 33 (97%) mengalami penyempitan lumen bronkial, 21 (61,7%) mengalami penebalan dinding bronkial, 15 (44,1%) mengalami gambaran mosaik, 5(5,8%) mengalami bronkiektasis dan seluruhnya (100%) mengalami emfisema. Hasil ACT yang didapat adalah pasien terkontrol sebagian (35,2%) dan tidak terkontrol (64,7%). Ketika dihubungkan dengan hasil ACT, maka penyempitan lumen bronkial ( $p=0,970$ ), penebalan dinding bronkus ( $p=0,488$ ), gambaran mosaik ( $p=0,882$ ), bronkiektasis ( $p=0,137$ ) dan emfisema tidak menunjukkan hubungan yang signifikan. Lesi lainnya yang ditemukan dan berkaitan dengan ACT adalah tuberkulosis (11,8%;  $p=0,273$ ), granuloma (2,9%;  $p=1,000$ ), aspergiloma bronkopulmonari alergik (5,9%;  $p=0,529$ ) dan bronkitis (5,9%;  $p=1,000$ ).

Gambaran lesi karakteristik penderita asma bronkial pada HRCT merupakan hal yang penting, karena dapat memperlihatkan komplikasi lain yang menyertai asma, namun karakteristik lesi tersebut tidak berkaitan dengan hasil ACT.

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<b>ABSTRACT</b><br>

The coexistence of asthma is widely recognized but has not been well described. High resolution computed tomography (HRCT) can detect the structural abnormalities in asthma. This study attempts describe the characteristic lesion of asthma and to correlate these abnormalities with clinical and asthma control test (ACT) data.

We performed a prospective cross sectional study of 34 asthma patients who were attending outpatient Persahabatan Hospital, Jakarta from January-February 2014, that were subjected to HRCT after initial evaluation and ACT.

Thirtythree subjects (97%) had narrowing of bronchial lumen, 21 (61.7%) had bronchial wall thickening, 15 (44.1%) had mosaic attenuation, 5 (5.8%) had bronchiectasis and 34 (100%) had emphysema. The ACT result were partial controlled patients (35.2%) and not controlled (64.7%). When correlated with ACT result, the narrowing of bronchial lumen ( $p=0.970$ ), bronchial wall thickening ( $p=0.488$ ), mosaic attenuation ( $p=0.882$ ), bronchiectasis ( $p=0.137$ ) and emphysema showed no significant association. Another HRCT

findings that correlate with ACT were tuberculosis (11.8%;  $p=0.273$ ), granuloma (2.9%;  $p=1.000$ ), aspergilloma bronchopulmonary allergica (5.9%;  $p=0.529$ ) and bronchitis (5.9%;  $p=1.000$ ).

HRCT findings of characteristic lesion are important in bronchiale asthma patients, because they can describe other complication / comorbidity eventhough they were not correlate well with ACT.;The coexistence of asthma is widely recognized but has not been well described. High resolution computed tomography (HRCT) can detect the structural abnormalities in asthma. This study attempts describe the characteristic lesion of asthma and to correlate these abnormalities with clinical and asthma control test (ACT) data.

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