Karakteristik cairan pleura dan penggunaan adenosine deaminase (ADA) pada efusi pleura tuberculosis = Pleural fluid characteristics and using adenosine deaminase (ADA) for tuberculous pleural effusions

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Abstrak

Latar Belakang: Masalah diagnostik efusi pleura tuberkulosis (EPTB) merupakan hal yang menjadi dilema di Indonesia. Pewarnaan rutin sering hasilnya negatif. Kultur M. tuberculosis (MTB) mempunyai kendala waktu, PCR masih dirasa mahal. Kadar Adenosine Deaminase (ADA) pada cairan pleura di berbagai studi di luar negeri menunjukkan tingkat sensitivitas dan spesifisitas yang tinggi. Uji diagnostik ADA di Indonesia belum pemah diteliti.

Tujuan. Mengetahui karaktreristik cairan pleura pada EPTB dan mengetahui nilai sensitivitas dan spesifisitas ADA.

Metodologi. Uji diagnostik yang dilakukan pada pasien dengan EPTB yang datang dan dirawat di RSCM, untuk dilakukan anamnesis, pemeriksaan fisik, foto torah analisa cairan pleura, pemeriksaan kimia dash, sitologi, kultur MTB, PCR TB, ADA dan respons terhadap OAT. Dilakukan pengolahan data dan dimasukkan ke tabel frekuensi dan tabel silang.

Hasil. Selama periode April - September 2005 terkumpul 30 pasien namun dua orang dikeluarkan karena dari sitologinya didapati keganasan dan 4 pasien gagal punksi. Dua puluh empat pasien dengan klinis EP TB yang terdiri dari 12 laki-laki (50%) dan 12 perempuan (50%). Kelompok usia terbanyak < 25 tahun (10 prang, 41,6%). Kultur kuman MTB positif (5 orang, 20,83%), pewarnaan kuraan semua negatif (24 orang, 100%), PCR TB positif (16 orang, 66,6%), ADA positif (16 orang, 66,6%), sensitivitas ADA 75%, spesifisitas ADA 50%, nilai prediksi positif 75%, nilai prediksi negatif 50%, rasio kemungkinan positif 1,5, rasio kemungkinan negatif 0,5.

Kesimpulan. Seluruh sampel cairan pleura didominasi limfosit. Diagnosis EPTB dengan menggunakan ADA, didapat sensitivitasnya auk-up tinggi namun spesitisitasnya kurang tinggi.
<hr><i>Backgrounds: Diagnostic problems of Tuberculous Pleural Effusions (TPE) is dilemmatic in Indonesia. Routine smears are almost always negative. M. tuberculosis (MTB) culture has a time problem and PCR TB is very expensive. Study in other countries about ADA levels on pleural effusions had excellent sensitivity and specificity for TPE. The ADA diagnostic test is less expensive and has never been studied before in Indonesia.

Objectives. To study TPE characteristics and ADA's sensitivity and specificity for TPE.

Methods. Diagnostic test was conducted to TPE clinically patients who were outpatients or inpatients in Cipto Mangunkusumo Hospital_ The patients were interviewed, physically examined, thorax x-ray, blood

serum, cytology, MTB culture, PCR TB, ADA levels and response to anti tuberculosis medicine. Data were processed and make available on frequency table and cross table.

Results. From April - September 2005, 30 patients were enrolled in this study but two were excluded because they had malignancy and four because of failure on aspiration procedure. 24 TPE patients were available for in depth study. There were 12 males (50%) and 12 females (50%). Majority of the patients were from < 25 years old group (10 subjects, 41.6%). Culture MTB positive (5 subjects, 20.83%), stain totally negative (24 subjects, 100%), PCR TB positive (16 subjects, 66.6%), ADA positive (16 subjects, 66.6%), ADA sensitivity 75%, ADA specificity 50%, positive predictive value 75%, negative predictive value 50%, likelihood ratio positive 1.5, likelihood ratio negative 0.5.

Conclusions. All of pleural effusions sample are predominant lymphocytes. To diagnose TPE, ADA has good enough sensitivity but less specificity.</i>