Performa Pemeriksaan Tes Cepat Molekuler (TCM) Jaringan dalam Diagnosis Tuberkulosis Ekstraparu (TBEP) = Performance of Tissue Rapid Molecular Test in the Diagnosis of Extrapulmonary Tuberculosis (EPTB).

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Abstrak

ABSTRAK
Latar Belakang: Diagnosis TBEP memiliki banyak tantangan. Spektrum histopatologi yang bervariasi hingga belum ada standar baku emas untuk penegakan diagnosis. Penegakan diagnosis sering berdasarkan kecurigaan klinis. Sebagian besar TBEP adalah pausibasiler sehingga nilai sensitivitasnya rendah dan sangat bervariasi antar jenis sampel. TCM dilaporkan memiliki sensitivitas dan spesifisitas yang baik dan WHO telah merekomendasikannya.

Tujuan: Penelitian ini bertujuan untuk mengetahui performa pemeriksaan TCM jaringan dalam penegakan diagnosis TBEP pada orang dewasa. Standar baku emas yang digunakan pada penelitian ini adalah pemeriksaan histopatologi atau BTA jaringan

Metode: Penelitian ini merupakan uji diagnostik dengan rancangan studi potong lintang analitik melibatkan 73 pasien. Pengambilan sampel dilakukan secara konsekutif pada pasien tersangka TBEP usia 18 tahun di RSUPN Dr. Cipto Mangunkusumo. Pemeriksaan TCM dilakukan dengan mesin GeneXpert MTB/Rif dan dilakukan penilaian sensitivitas, spesifisitas, nilai duga positif, nilai duga negatif, dan akurasi.

Hasil: Sampel yang terdiagnosis sebagai TBEP didominasi oleh TB osteoartikular (28,6%). Gambaran histopatologi peradangan granulomatosa dan TCM positif sebanyak 19 sampel, peradangan non spesifik dan TCM positif sebanyak 1 sampel, peradangan kronik dengan sel atipik dan TCM positif sebanyak 2 sampel, peradangan granulomatosa dan TCM negatif sebanyak 13 sampel. Sensitivitas dan spesifisitas keseluruhan TCM adalah 59,38% dan 92,6%. Nilai duga positif dan nilai negatif TCM adalah 86% dan 74%. Akurasi TCM adalah 78,1%.

Simpulan: Performa pemeriksaan TCM dalam penegakan diagnosis TBEP cukup baik. Sensitivitas dari TCM untuk diagnosis TBEP sangat bervariasi. Hasil TCM negatif tidak menyingkirkan diagnosis TBEP dan integrasi dengan modalitas pemeriksaan lain sangat direkomendasikan. Spesifisitas TCM cukup tinggi sehingga dapat membantu menegakkan diagnosis TBEP.
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ABSTRACT
Background: The diagnosis of EPTB has many challenges. The histopathological spectrum varies, until there is no gold standard for diagnosis. The diagnosis is often based on clinical suspicion. Most of the EPTB are paucibacillary so their sensitivity is low and varies greatly between types of samples. Tissue rapid molecular test is reported to have good sensitivity and specificity and WHO has recommended it.

Objective This study aims is to determine the performance of tissue rapid molecular test in the diagnosis of EPTB in adults. The gold standard in this study is histopathology or tissue AFB.

Methods: This study is a diagnostic test with analytic cross-sectional study design involving 73 patients. Sampling was carried out consecutively in patients with EPTB suspects aged 18 years at Dr. Cipto Mangunkusumo Hospital. Tissue rapid molecular test examination is carried out with a GeneXpert MTB/Rif machine and sensitivity, specificity, positive predictive value, negative predictive value, and accuracy are assessed

Results: The diagnosed sample as EPTB is dominated by osteoarticular TB (28.6%). The overview of histopathological findings are granulomatose's inflammation and tissue rapid molecular test positive:19 samples, non-specific inflammation and positive tissue rapid molecular test: 1 sample, chronic inflammation with the atypical cells and positive tissue rapid molecular test: 2 samples, no granulomatose's inflammation and negative rapid molecular test: 13 samples. The overall sensitivity and specificity of rapid molecular test are 59.38% and 92.6%. The positive predictive values and negative predictive values of rapid molecular test are 86% and 74%. The accuracy of rapid molecular test is 78.1%.

Conclusions: The performance of tissue rapid molecular test in diagnosing EPTB is good enough. The sensitivity of rapid molecular test for the diagnosis of EPTB varies widely. Negative rapid molecular test result does not rule out diagnosis of EPTB and integration with other examination modalities is highly recommended. Rapid molecular test specificity is high enough so it can help enforce the diagnosis of EPTB.