Manfaat uji imunokromatografi tb ag mpt64 untuk diferensiasi mycobacterium tuberculosis kompleks dan mycobacterium non tuberculosis kompleks = Benefits imunocromatography tb ag mpt64 for differentiation of mycobacterium tuberculos complex and mycobacterium non tuberculosis

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Abstrak

Latar Belakang : Mycobacterium tuberculosis merupakan bakteri intraselular fakultatif penyebab Tuberkulosis (TB). Jumlah penderita 1,7 milyar orang di seluruh dunia dan terdapat penambahan 3 juta kasus baru setiap tahunnya. Prevalensi TB di Indonesia tahun 2013 sebesar 297 per 100.000 penduduk dengan kasus baru setiap tahun mencapai 460.000 kasus. Total kasus hingga 2013 mencapai sekitar 800.000-900.000 kasus. Faktor yang menghambat diagnosis TB dapat ditegakkan adalah lamanya waktu menunggu hasil kultur dan uji identifikasi penyebab TB. Menumbuhkan kuman penyebab TB berkisar 6-8 minggu. Pemeriksaan identifikasi membutuhkan waktu 3 hari sampai 1 minggu. Total waktu yang diperlukan untuk pemeriksaan kultur yaitu 7-9 minggu. Oleh karena itu dibutuhkan metode yang dapat mengidentifikasi lebih cepat dan akurat.
Tujuan : Penelitian ini bertujuan mendapatkan data keberhasilan identifikasi MTB dan MOTT menggunakan alat tes berupa Kit (SD TB AgMPT64®). Mengetahui nilai sensitivitas, spesifisitas, nilai prediktif positif (NPP) dan Nilai prediktif negative (NPN) dari uji imonochromatograpic (SD TB AgMPT64®).
Metode : Menggunakan uji diagnostik, baku emas yang digunakan dalam penelitian ini dengan pemeriksaan PCR TB. Sampel Penelitian ATCC Mycobaterium non tuberculosis (MOTT), isolate Mycobacterium tuberculosis H37RV dan isolat Mycobacterium tuberculosis yang merupakan bahan biologi tersimpan milik Departemen Mikrobiologi FKUI.
Hasil : Dengan sampel 46 isolat, nilai sensitivitas dan spesifisitas ICT TB Ag MPT64 yang diperoleh 100%(IK95%: 90,4%-100%) dan 100%,(IK95%: 66,2%-100%) NPP 100% (IK95%: 90,4%-100%). NPN 100%,(IK95%: 66,2%-100%) pemeriksaan niacin dan PNB nilai sensitivitasnya 100%(IK95%: 90,4%-100%), spesifisitas 88,8%(IK95%: 51,7%-98,1%). dan NPP 97,3% (IK 95%: 86,1%-99,6%), NPN 100% (IK95%: 62,9%-100%).
Kesimpulan : Analisis hasil penelitian ini menunjukkan uji identifikasi ICT TB AgMPT64 memiliki nilai sensitivitas yang sama dengan uji Niasin paper strip, uji PNB LJ dan nilai spesifisitas yang lebih tinggi.
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Background: Mycobacterium tuberculosis is a facultative intracellular bacterium causes tuberculosis (TB).The number of patients 1.7 billion people around the world and there is an addition of 3 million new cases each year. The prevalence of TB in Indonesia besad on surveillance in 2013 was to 297 per 100,000 population with new cases every year reach in 460,000 cases. Thus, the total number of cases to 2013 reached approximately 800000-900000 cases. One of the efforts to control the spread of infection is to diagnose TB quickly and accurately so it can be reach all levels of society. There are several factors that hamper the diagnosis of TB one of them is the time of culture and species identification. The identification Mycobacterium is important to determine the approproate treatment. Growing the bacteria that causes TB

ranges from 6-8 weeks. Identification takes 3 days to 1 week. So the total time required for culture is 7-9 weeks. Therefore, it needs a method that can do identification more quickly and accurately.
Objective: Knowing the value of the sensitivity, specificity, positive predictive value (NPP) and negative predictive value (NPN) of an imonochromatograpic (SD TB AgMPT64®) test with the gold standard TB PCR.
Methods: This study used a diagnostic test, the gold standard used in this study was TB PCR. Sample Research ATCC mycobaterium non tuberculosis (MOTT) and isolates of Mycobacterium tuberculosis H37Rv stock, M.tuberculosis isolate which is stored biological materials belong to Department of Microbiology, Faculty of Medicine.
Results: the sensitivity and specificity of ICT TB Ag MPT64 were 100%(CI95%: 90,4%-100%) dan 100%,(CI95%: 66,2%-100%) NPP 100%(CI95%: 90,4%-100%). NPN 100%,(CI95%: 66,2%-100%) sensitivity of niacin paper strip dan PNB LJ were 100%(CI95%: 90,4%-100%), spesificity 88,8%(IK95%: 51,7%-98,1%). and NPP 97,3% (IK 95%: 86,1%-99,5%), NPN 100% (IK95%: 62,9%-100%).
Conclusion: Analysis of the results of this study indicate the identification of ICT TB test AgMPT64 have the same sensitivity as niacin paper strip test, PNB LJ and had higher specificity values.