

Deteksi Antibodi Anti-Aspergillus dalam Diagnosis Aspergilosis Invasif pada Pasien di Unit Perawatan Intensif = Detection of Anti-Aspergillus Antibody in Invasive Aspergillosis for Intensive Care Unit Patients

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Abstrak

Aspergilosis invasif AI merupakan infeksi jamur invasif disebabkan *Aspergillus* spp sedangkan aspergilosis paru invasif API merupakan manifestasi AI yang sering ditemukan Gejala klinis laboratorium rutin dan radiologis tidak khas sehingga sering terjadi keterlambatan diagnosis dan tatalaksana Pemeriksaan biopsi tidak selalu dapat dilakukan dan berisiko tinggi sedangkan pemeriksaan biakan memiliki keterbatasan sensitivitas dan waktu Deteksi antigen galaktomannan GM merupakan uji penapis AI yang dinilai baik tetapi di Indonesia kit GM tidak rutin tersedia dan mahal sehingga perlu dicari uji diagnostik alternatif antara lain menggunakan deteksi antibodi anti *Aspergillus* yang sederhana mudah murah dan terjamin ketersediaannya Tujuan penelitian ini membandingkan hasil pemeriksaan deteksi antibodi anti *Aspergillus* metode immunodiffusion test IDT menggunakan crude antigen *Aspergillus* dengan deteksi antigen GM serta mengetahui nilai sensitivitas dan spesifisitasnya Penelitian berdisain potong lintang ini merupakan bagian dari penelitian multisenter sebelumnya mengenai insidens API pada 405 pasien ICU di 6 rumah sakit di Jakarta Selanjutnya ditentukan 125 pasien non neutropenia diduga AI yang bahan klinisnya menjalani pemeriksaan uji diagnostik di atas Biakan *Aspergillus* sp tumbuh pada bahan klinis ekskreta paru yang dimiliki 26 dari 125 pasien tersebut 20 8 Diagnosis AI putative ditegakkan pada 26 pasien 6 2 dari 405 pasien keseluruhan Dari 125 pasien yang diperiksa uji GM positif ditemukan pada 62 pasien 48 6 sedangkan uji IDT positif pada 74 pasien 59 2 Analisis statistik menunjukkan tidak terdapat perbedaan bermakna antara hasil uji GM dan uji IDT tetapi nilai kesetaraannya sangat lemah nilai kappa 0 169 Uji IDT menggunakan crude antigen *Aspergillus* mempunyai sensitivitas 67 7 dan spesifisitas 49 1

.....Invasive aspergillosis IA is an invasive fungal infections caused by *Aspergillus* spp while invasive pulmonary aspergillosis IPA is the most common manifestation of IA Clinical symptoms routine laboratory and radiological features are not typical and could lead to diagnosis and treatment delayed Biopsy is high risk and not always possible to be performed whereas culture examination has limited sensitivity and time consumed Galactomannan GM antigen detection is good for IA screening but the kit is expensive and not routinely available in Indonesia It is necessary to find an alternative tests such as detection of anti *Aspergillus* antibody which is simple inexpensive and more available This study aims to determine the sensitivity and specificity of immunodiffusion test IDT for detecting anti *Aspergillus* antibody using crude antigen compare to GM antigen detection on diagnosis of IA This cross sectional study is part of previous multicenter study on incidence of IA in ICU patients at six hospitals in Jakarta 405 patients Then clinical materials of 125 non neutropenic patients suspected IA were determined to undergo both clinical diagnostic tests *Aspergillus* sp were isolated from clinical materials of lung excreta from 26 out of 125 patients 20 8 Putative IA was diagnosed in 26 patients 6 2 out of 405 patients From 125 patients examined GM positive test was found in 62 patients 48 6 while IDT test positive in 74 patients 59 2 Statistical analysis showed no significant differences between the results of IDT test compared to GM but the equality value is very weak kappa 0 169 IDT test using crude *Aspergillus* antigen has a sensitivity of 67 7 and specificity of 49 1 ;

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