





 **Current Issue**


 **Browse Issues**


 **Search**



 **About this Journal**


 **Instruction to Authors**

 **Online Submission**

 **Subscription**

 **Contact Us**



 **RSS Feed**

Acta Medica Iranica

2009;47(4) : 15-23

Anti-Cryptococcal-Globulin-Latex Production for Rapid Detection of *Cryptococcus neoformans* Polysaccharide Antigen in Cryptococcosis

F Zaini, M Safara, P Kordbacheh, M Pezeshki, B Beheshti

Abstract:

Cryptococcosis has become the fourth leading life-threatening opportunistic infection in patients with AIDS, but also occurs in non-AIDS patients. In view of the increasing numbers of infection during last decade in Iran, use of rapid, sensitive and specific test for diagnosis of cryptococcal disease has become important than ever. We aimed to produce the reagents for latex cryptococcal antigen test. The antigen was prepared from NCPF 3168 strain of *Cryptococcus neoformans*. Anticapsular antiserum of *C. neoformans* raised in rabbits and latex carboxylate- modified beads were coated with antiserum. The maximally- reactive globulin dilution was obtained at dilution of 1:400. For evaluation of efficacy of reagents, challenged 38 BALB/C mice and other 38 mice were used as controls. The mice were bled and autopsied. Brain, heart and lung were checked by direct, histopathological and cultural examination for cryptococcosis. The sera from case and control mice were tested with Immunomyologic (Immy) kit and also our produced reagents (OPR) for detection of cryptococcal antigen. Moreover, 15 cerebrospinal fluid and 15 serum samples from patients with cryptococcal meningitis, 30 with aspergillosis, 30 with suspected other fungal infections, and 30 from healthy individuals were tested as well. The results showed that the sensitivity (97.3%) and specificity (100%) of OPR was quite comparable with those of Immy kit. Therefore, it could be regarded as a substitute for commercial kits.

Keywords:

Antigen detection . Anticryptococcal globulin . Latex agglutination . Cryptococcosis

TUMS ID: 1889

Full Text HTML  Full Text PDF  399 KB

top ▲

[Home](#) - [About](#) - [Contact Us](#)

TUMS E. Journals 2004-2009
Central Library & Documents Center
Tehran University of Medical Sciences

Best view with Internet Explorer 6 or Later at 1024*768 Resolutions