Does the capsule component of the Cryptococcus neoformans glucuronoxylomannan impair transendothelial migration of leukocytes in patients with Cryptococcal meningitis? (letter)
Lipovsky, M.M.; van Elden, L.J.R.; Walenkamp, A.M.E.; Dankert, J.; Hoepelman, A.I.M.

Published in:
The Journal of Infectious Diseases

Citation for published version (APA):

General rights
It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations
If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: http://uba.uva.nl/en/contact, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.
The Journal of Infectious Diseases 1998;178:1230–1

To the Editor—We appreciate the comments of Thompson [1], who kindly provided some data to support our findings [2]. As originally stated, we failed to find an association of serum reac ivi y with clinical profiles, including pa ient age or sex or dura ion, si c, or number of molluscum lesions. Al hough Thompson did not repor a correlation between he rea ic y and whe re la i e an ibody i er in he virion. J Med Virol 1982;9:19–25.

Reprin s or correspondence: Dr. Takahiro Wa anabe, Dep . of Derma ogy, University of Tokyo, 7-3-1 Hongo, Bunkyo-ku, Tokyo 113-0033, Japan (wa anabe -der@h.u- okyo.ac.jp).

The Journal of Infectious Diseases 1998;178:1231

Reply

To the Editor—We apprecia e he commen s of Thompson [1], who kindly provided some da a supplemen ary o our findings [2]. As originally s a ed, we failed o find an associa ion of serum reac ivi y wi h clinical profiles, including pa ient age or sex or dura ion, si c, or number of molluscum lesions. Al hough Thompson did not repor a correla ion be ween he rea ic y and whe re la i e an ibody i er in he virion. J Med Virol 1982;9:19–25.

Reprin s or correspondence: Dr. Takahiro Wa anabe, Dep . of Derma ogy, University of Tokyo, 7-3-1 Hongo, Bunkyo-ku, Tokyo 113-0033, Japan (wa anabe -der@h.u- okyo.ac.jp).

The Journal of Infectious Diseases 1998;178:1231

Does the Capsule Component of the Cryptococcus neoformans Glucuronoxyloman- 
Impair Transendothelial Migration of Leukocytes in Patients with Cryptococcal eningitis?

To the Editor—The encapsula ed yeas -like fungus Cryptococcus neoformans is he leading cause of mycological infec ion of he cen ral nervous sys em in pa iens w i h h compromised cell-media ed immuni y [1]. Recen ly, we demons ra ed ha he cerebrospinal fluid (CSF) of pa ien s w i h cryp coccal meningi is is con ains high levels of he neu rophil chemoa rac an e in he erleinik (IL)-8, despi e he fa c ha he CSF con ains few neu rophils [2]. The cryp coccal capsular polysaccharide glucuronoxyloman- 

(MXM) is presen in serum and CSF of pa ien s w i h cryp coccal meningi is, and GXM is known o in erfere wi h he neu rophil migra ion [3]. We demons ra ed in vi ro ha GXM is capable of inducing he produc ion of IL-8 by brain cells, and i also preven s neu rophils from migra ing oward IL-8 [4]. Consequen ly, a high ra io of GXM in serum and CSF w i h he CSF leukocy e cell coun s of 35 Du h human immunodeficiency virus—infec ion ed pa ien s w i h he al u cre-proven diagnosis of cryp coccal meningi is is be ween 1986 and 1996. An igen i ers for he pa ien s w ere measured wi h h commercial ki s rou inely used for diagnos is he ec ion of cryp coccal an igen

References


Reprin s or correspondence: Dr. C. Thompson, Dep . of Infectious Diseases, Level 6, Blackburn Bldg. (D06), University of Sydney, Sydney, NSW 2006, Aus ralia (carol @infdis.usyd.edu.au).

The Journal of Infectious Diseases 1998;178:1230–1

© 1998 by he Infectious Diseases Socie y of America. All righ s reserved.

0022-1899/98/7804–0055$02.00
Figure 1. Inverse correlation between ratio of leukocyte count in cerebrospinal fluid (CSF) and cryptococcal glucuronoxylomannan (GXM) in serum ([GXM]se) over that in CSF ([GXM]csf) in 35 patients with cryptococcal meningitis.

(mainly Murex Cryptococcus tests; Murex, Ken, UK) and were obtained within 5 days of the CSF leukocyte cell count. Since GXM can be a marker of neutrophils [4], the GXM concentration gradient over the blood-brain barrier (expressed as the ratio of GXM in serum vs. CSF) is expected to be more critical of the CSF leukocyte cell count than are absolute GXM concentrations in serum. Figure 1 demonstrates a significant inverse correlation between the (log) GXM ratio and the (log) CSF leukocyte cell count in patients with cryptococcal meningitis. (Correlation coefficient of log values: $r = 0.54$, $n = 35$; two-sided $P < .001$). These data suggest that the cytokine finding of incoherence of GXM with neutrophil migration may indeed represent a pathogenic mechanism in cryptococcal meningitis.

References


Reprints or correspondence: Dr. A. I. M. Hoepelman, Universiteit Utrecht, Department of Infectious Diseases and AIDS, University Hospital Utrecht, and Eijkman-Winkler Institute, Utrecht, The Netherlands.