Author's response to reviews

Title: Keratitis by Fusarium temperatum, a novel opportunist

Authors:

Abdullah M.S Al-Hatmi (a.alhatmi@cbs.knaw.nl)
Alexandro Bonifaz (a_bonifaz@yahoo.com.mx)
G. Sybren de Hoog (s.hoog@cbs.knaw.nl)
Leticia Vazquez-Mayo (letivaz@yahoo.com.mx)
Karla Garcia-Carmona (karlapaola10@gmail.com)
Jacques F. Meis (j.meis@cwz.nl)
Anne D. van Diepeningen (a.diepeningen@cbs.knaw.nl)

Version: 2
Date: 4 June 2014

Author's response to reviews: see over
To Editor of Journal of BMC Infectious diseases

June 5th, 2014

Dear Editor

We herewith have the pleasure to offer the manuscript entitle; “Keratitis by *Fusarium temperatum, a novel opportunist*”. The manuscript concerns a new fungal pathogen from eye infections of a patient diagnosed as a mycotic keratitis. The diagnosis of fungal keratitis often occurs late, as many cases are initially mistaken for bacterial keratitis or other ocular surface disorders. Generally in clinical practice, if the patient's history is negative for contact with an organic source, many clinicians assume the existence of a bacterial keratitis and treat empirically with a fourth-generation fluoroquinolone, such as moxifloxacin in conjunction with an aminoglycoside, such as tobramycin. The obtained data in this paper indicate that the molecular strategy used in this study is a useful complement to the conventional diagnostic approaches used for keratomycosis and, in particular, allows precise and fast fungal identification, in response to the clinical requirements. Clinical samples are required for further investigation of the clinical potential of molecular approaches in the diagnosis of mycotic infections.

The isolate was found to be isolated for the first time from human samples and never reported before because it was only described recently as a new *Fusarium* species. At the beginning of the patient’s diagnosis, misidentification of this fungus was due to morphological identification and absence of diagnostic features. The manuscript emphasizes that the definitive identification with molecular techniques is important especially for rare emerging and opportunist fungus. Also literature review was done and indicating that molecular similarity between hypothetical virulence factors in plant and human pathogens, but in practice such species are extremely uncommon and very rare. We think it's best to put these cases in the hands of an experienced medical specialist.

The manuscript is an original work and has not been published or under consideration for publication in any other journal. All authors have contributed significantly in the content and preparation of this work and approved the submission. The authors report no conflicts of interest

We would be delighted if you would consider our manuscript.

In addition, there are few changes are made according to the request of BMC Infectious Diseases and these changes are explained as following:

1- Regarding the consent, we obtained a consent signed by the patient as well as by the corresponding author. We think that his proper authorization might allow us to publish this data without disclosing any personal information received.
2- Regarding patients’ sample, after receiving the eye swab sample for the purpose of diagnosis and after identifying the fungal strain, we found out this fungal species never ever reported and described from any clinical samples so we think, it is really worth reporting and describing it in all microbiological aspect. The fungal strains are further explored and used for the purpose of the medical research.

3- Regarding the eye image and comparative corneal scrapings, patient had agreed to use this samples for our research and you can have a look at the obtained consent.

4- Some changes are also made in the reference section, just to make all the references according to BMC ID reference style.

5- Natamycin result was received yesterday so we also included the result of this drug because we think it is good to report this activity of this drug against *F.temperatum* since it is an eye infection and doctors mostly use it as eye drop to treat keratitis with fungal infection.

Sincerely yours,

Abdullah Al-Hatmi

CBS-KNAW Fungal Biodiversity Centre, Utrecht, the Netherlands, Institute of Biodiversity and Ecosystem Dynamics University of Amsterdam, Amsterdam, the Netherlands.

E-mail: a.alhatmi@cbs.knaw.nl