Reviewer's report

Title: Rapid detection of dermatophytes and Candida albicans in onychomycosis specimens by an oligonucleotide array

Version: 2 Date: 23 July 2014

Reviewer: Nobuo Kanazawa

Reviewer's report:

Major Compulsory Revisions

1. In this report, an oligonucleotide array was applied for direct detection of dermatophytes and Candida albicans in clinical specimens suspected for onychomycosis, and its better usefulness than culture was shown. Although the study was well performed and appropriately evaluated (actually more accurate and rapid than culture), the efforts and cost were not estimated. To claim the cost-effectiveness of obtaining the positive laboratory test before antifungal treatment (line 7-9 of Discussion), the efforts and cost of this method should be clarified.

2. As shown in Table 2, this method caused false positive results in two cases. This evaluation was based on the concept that the clinical observations provide the final diagnosis (ITS cloning also causes false negative). Therefore, it should be noted that, if the diagnosis as onychomycosis is given in cases that at least either of KOH mount or tinea pedis is positive, the diagnosis is true in all cases in Table 2 (except for case C30, in which diagnosis cannot be determined by such criteria). As identification of the fungal species is not fundamentally necessary for pretreatment diagnosis, such a diagnostic method seems to be much more valuable (easy, rapid, cheap and accurate) in clinical usage. The authors should comment on this point.

3. To avoid confusion, Table 1 should be divided into two; the first two columns showing the relation of the primary results of culture and array should be separated.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare that I have no competing interests.