Reviewer's report

Title: Interferon-gamma as adjunctive immunotherapy for invasive fungal infections: a case series

Version: 3 Date: 27 November 2013

Reviewer: Richard Hotchkiss

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General comments
The purpose of this investigation was to examine the efficacy IFN gamma in patients with fungal sepsis. The investigation examined effects of IFN-gamma on the ability of immune effector cells to restore cytokine production and to increase HLA-DR expression. This is an important area of study and there is a growing belief that administration of agents that boost patient immunity will improve outcome in sepsis. This study is an important contribution to the field. Overall the methods appear reasonable. There are some issues that need to be addressed however.

Minor essential revisions:
1) The authors make a point about HLA-DR expression being an important aspect of the study and show that IFN-gamma can increase HLA-DR. The investigators also state that examination of monocyte HLA-DR expression was not different if performed immediately or within 24 hrs. The authors did 5 samples to test this fact. This seems like a small number of samples to test and there is presentation of the data. This investigator is a little skeptical of this data as HLA-DR is known to vary quickly. Also, in the supplementary methods, there is no mention of standardization using isotype control beads or the Quantibrite method that is recommended. The authors need to address this point and note key limitations in this regard.

2) Why do the authors believe that IFN-gamma led to decreased absolute lymphocyte counts?

3) The investigators should show a representative flow diagram for the HLA-DR measurement.

Level of interest: An article of outstanding merit and interest in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I declare that I have no competing interests