Reviewer's report

**Title:** Invasive fungal sinusitis in patients with hematological malignancy: 15 years experience in a single university hospital in Taiwan

**Version:** 2 **Date:** 19 April 2011

**Reviewer:** Ray Hachem

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This manuscript with the title Invasive fungal sinusitis in patients with hematological malignancy: 15 years experience in a single university hospital in Taiwan. This is a Well written and interesting study. the methods is appropriate and well described. The manuscript adhere to the relevant standards for reporting and data deposition. The discussion and conclusions well balanced and adequately supported by the data. Given the little data we have on the Invasive fungal sinusitis in patients with hematological malignancy and the role of surgery in addition to antifungal therapy in the management of these infections. This study represents a major step forward. My comments are as follows:

1. The authors mentioned that there were 25 patients with proven or probable invasive fungal sinusitis the majority of them caused by aspergillus flavus 12 and only two patients with IFS due to aspergillus fumigatus. This finding is surprising because aspergillus fumigatus is the most commonly reported organism causing mold infections. It is important that the authors should clarify that they are not dealing with an outbreak.

2. Do we have compliance data on the infection control measures for these periods? It would be interesting to know if there is any difference between the study group and the control group enrolled and how why 64 patients for the control was chosen why not double the cases 92 patients?

3. Since patients have not been investigated via a prospective randomized clinical trial. I am not sure we can say that the intensity of chemotherapy and allogeneic stem cell transplantation had no impact on the prognosis of IFS.

4. The attributable mortality of patients with AML was also much greater than non-AML patients. Was this attributable mortality to IFS.

5. In this study, there were four patients with mucormycoses they did received high dose antifungal therapy and aggressive surgical debridement, but three died (mortality, 75%). What was the antifungal agents given to those patients, and did the one who survived recovered from neutropenia?

6. The authors mentioned that in this study, we showed earlier diagnosis by using serial Aspergillus galactomannan antigen test in the modern medical era to
detect IFS, which may lead to decreased morbidity and mortality in high risk patients. I did not see enough evidence for such statement in this study.

7. Need to include limitations of the study