Reviewer's report

Title: Memory loss after lenalidomide uptake: Report of two cases

Version: 1 Date: 6 June 2012

Reviewer: rachid baz

Reviewer's report:

The authors report involves 2 patients who developed cognitive impairment while on lenalidomide highlighting this previously unreported toxicity of this agent. The main weakness of the paper is that they have not established causality with a high degree of certainty and beyond reasonable doubt and other possible causative factors could be at play. Nonetheless, they have engaged in considerable evaluations for the cognitive impairment including SPECT and have shown an element of reversibility after discontinuation of the offending agent (s). This does strengthen the evidence of causality to some extent. Overall I would recommend deemphasizing a cause and effect relationship (since it is not proven beyond a reasonable doubt) but rather word the manuscript in an effort to increase awareness to the potential neurotoxicity of this agent among treating physician who may otherwise be reluctant to associate lenalidomide with such a side effect.

The following Minor Essential revisions / questions are suggested

1- I would recommend editorial assistance with respect to improving grammatical errors and readability.

2- I would suggest the use of generic drug names rather than trade name as in the case of bortezomib throughout the manuscript

3- When in relation to high dose therapy did patient 1 develop his cognitive impairment? In addition, did this impairment improved prior to starting lenalidomide?

4- It would be important to note that penetration of the drug through an intact blood brain barrier is distinct than penetration through a blood brain barrier in a patient with cerebral lesions and does not necessarily imply that lenalidomide would penetrate to the CNS. the sedative effects of thalidomide would suggest that drug does penetrate the CNS but lenalidomide does not have sedating properties.

Level of interest: An article of limited interest

Quality of written English: Needs some language corrections before being published

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

Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this paper, either now or in the future? I have received research support for clinical trial for celgene

Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this paper, either now or in the future? no

Do you hold or are you currently applying for any patents relating to the content of the manuscript? no

Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript? no

Do you have any other financial competing interests? no

Do you have any non-financial competing interests in relation to this paper? no