Reviewer's report

Title: Antimicrobial activity of amlodipine against extensively drug-resistant Acinetobacter baumannii isolates in vitro

Version: 3 Date: 9 February 2013

Reviewer: Howard H Xu

Reviewer's report:

Major Compulsory Revisions
The authors of the manuscript undertook an important study to evaluate synergistic effects of amlodipine and imipenem to 42 clinical isolates of multidrug resistant Acinetobacter baumannii. The study is timely due to emergence and spread of MDR strains in hospitals and communities. However, this reviewer has major concerns regarding the study design and conclusion reached. Specifically,

(1) the authors failed to characterize the 42 clinical isolates beyond merely antibiotic susceptibility phenotypes. It is unclear whether or not these 42 isolates are clonally related. A series of molecular experiments should have been carried out to determine molecular epidemiology of these isolates, such as genomic species of these isolates using intergenic spacer sequencing, multilocus sequence typing (MLST) method from Pasteur Institute. Results of these experiments would have provided possible explanation of the consistent interactions or lack of between amlodipine and imipenem among different isolates (see below point #2);

(2) the conclusion reached by the authors "AML alone or combined with imipenem showed antibacterial activities against clinically resistant Acinetobacter baumannii isolates in vitro" cannot be supported by results presented. Only in 50% of the isolates did the authors observed synergy or partial synergy between these two drugs, an inconsistent result for which the authors failed to elaborate or explain. Such inconclusive observations and lack of discussion diminished the reviewer's enthusiasm for the manuscript.

Minor Essential Revisions:
Furthermore, there are several minor comments about the manuscript the authors may find useful in future revisions:
- the title is inappropriate: with MICs ranging 40 ug/ml to 320 ug/ml, amlodipine should not be considered an antibacterial compound. Instead, the title should have mentioned about synergistic effects;
- in the Methods section, sources of other antibiotic drugs should have been described.
- in the Results section, Table 1 was never cited; it was initiated mentioned in Methods section.
Level of interest: An article of limited interest

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