Reviewer’s report

Title: The clinical implications of thrombocytopenia in adults with severe falciparum malaria; a retrospective analysis

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Reviewer: Kathryn Maitland

Reviewer’s report:

Dr Hanson and colleagues use two clinical trial databases to explore the clinical and prognostic relevance of thrombocytopenia. This is a well written paper addressing an clinical complication of severe malaria, thrombocytopenia, which has been proposed as an inclusion criteria for severe malaria - but to date the data are unclear whether this is justified. It also contains valuable additional data on some additional haematological findings and linked clinico-pathological data microvascular obstruction and evidence of systemic endothelial activation.

My comments are largely minor, for clarity.

In the methods section

The dates the studies were conducted should be added.

The WHO criteria-which were these taken from – the most recent guidelines or older ones? Please provide a reference.

For hyperparasitaemia and cut offs for severe anaemia and jaundice can these be presented in both % parasitaemia and parasites per mm3 for ease of interpretation.

Can you say a little bit more about the RCAM score in the methods; that is has been validated etc and findings which are relevant to its use in this paper, where final analyses are adjusted for severity (I presume this is the RCAM score – perhaps make this clearer in the statistical analysis section?)

OPS – describe whether/how this is a qualitative or quantitative assessment of perfusion.

Results

Platelet count was not available or all participants. Is there any indication that those who did not have a platelet count (missing data) were random or was there any possibility of sampling bias ie the most severe patients excluded. Some details on the RCAM scores of missing patients and outcome, may help here.

Details of the how degree of bleeding was classified. Severe bleeding- did this include severe GI bleeding (and amenable to prevention?) To expand this
I was interested in the reference to Platelet kinetics and scintigraphic imaging in thrombocytopenic malaria patients. Thromb Haemost 2004, 91(3):553-557. Perhaps needs clarification that this was done in non severe malaria; but does support the fact that diffuse local sequestration of platelets with shorter half life rather than spleen or liver sequestration.

Would the authors want to speculate whether if resources permitted whether severe thrombocytopenia should be treated with platelet transfusions? From the data presented there does not seem to be any justification.

Quality of written English: Acceptable

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

Declaration of competing interests:

Only competing interests are that I have published with this 'group' in the last 5 years.

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