Reviewer’s report

Title: Malaria parasitaemia and clinical disease in pregnant women at first clinic visit in the mount Cameroon Area

Version: 2 Date: 24 February 2015

Reviewer: Rose McGready

Reviewer’s report:

This study provides useful data on different aspects of ANC care and relation to malarial in pregnancy in Cameroon

The most pertinent

1. Pregnant women in a high endemic area present between scheduled visits have higher parasite densities and a history of fever.

2. The white cell count suggests other causes of fever than malaria may be important in this population.

2. Late presentation of women in general.

3. Low IPT use.

There is a further need to explore the data available for further associations.

Major compulsory revisions

Line 105-11 these all seem like results of the current manuscript and should not be in the introduction.

Line 137 – please explain what pregnant women are treated with when they have malaria. Is there a difference in treatment when symptoms have been reported? Or are all parasitaemic women treated with ACT regardless of symptoms?

Line 221 – the findings in this paragraph are not entirely typical. Malaria causes many variations in cell counts but white cell counts and lymphocyte counts predominantly decrease with malaria (P.falciparum and P.vivax). In this data the possibility of other infection that cause fever is possible. A multitude of fever causing illnesses are possible in the tropics. What efforts were made to check for other infection? Co-infection is also possible? Simple common obstetric infection e.g. urinary tract infection also cause fever. For some clarifications on this point please see Nadjm et al Severe febrile illness in adult hospital admissions in Tanzania: a prospective study in an area of high malaria transmission. Trans R Soc Torp Med Hyg 2012 Nov;106(11):688-95. doi: 10.1016/j.trstmh.2012.08.006. Epub 2012 Sep 28

How well are antenatal clinics equipped to determine other causes of fever in pregnant women. Is this a limitation of the study.
Line 257-8 Is the standing water around the house a breeding site for other vectors that cause febrile illness such as dengue of chikungunya. Or does the water contribute to plants/cattle that could encourage vectors that cause rickettsial infection?

Line 162 The relation of HIV to fever and to malaria needs clarifying. Do other STI e.g. syphilis feature in this population and could that effect fever presentation and WBC count.

Discussion

There is no mention the relationship (or lack thereof) between IPT usage and clinical disease. Even it is a negative. The relationship between ITN and knowledge of MiP needs exploring especially as it is alluded to in the discussion (line309-11).

Is IPT use low because you have included first ANC visit? Most women have come with possibly half their pregnancy completed and the damaging effects of malaria already in place. Detection and treatment addresses the current parasitaemia but only IPT with effective antimalarials give early in pregnancy is going to reduce adverse effects from early infection. IPT can only be started late when women present late. This needs discussion – if IPT is not started until women turn up to ANC – it is too late to eliminate (not reduce) adverse effects of MiP.

Line 324-327 What other factors are associated with being single e.g. HIV? Education? Age? IPT? ITN? Later presentation in pregnancy? Socio-economic group?. – this needs a separate examination of the data This data is in your current data set and can be added to the results. This will make the discussion less hypothetical and more directive. Single women may also be at risk of other infections. Are these women welcome at ANC or is there a prejudice towards them presenting on time.

Minor compulsory revisions

Abstract

Line 23-24 First sentence should be more like the first sentence of the introduction: e.g. Malaria in pregnancy is a risk factor for complications in high and low endemic areas.

Line 85-86 could add “… or in women at delivery only to look at placental malaria.”

Line 105-7 font size changes

Line 146 axillary temperature > fever). Is something like the temperature missing from this sentence?

Line 199 Add the at the beginning of the sentence: The majority of women were married.

There are other minor typos in english and in punctuation that need correcting
e.g. missing full stops.

**Level of interest:** An article of importance in its field

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

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests