Reviewer’s report

Title: Concomitant malaria among visceral leishmaniasis in-patients from Gedarif and Sennar States, Sudan: a retrospective case-control study

Version: 1 Date: 19 November 2012

Reviewer: Shaden Kamhawi

Reviewer’s report:

Review report

General

This study addresses a subject of public health importance. However, the text is too long in parts of the results and the discussion and should be made more concise. Additionally, there are numerous linguistic and grammatical errors that require re-editing of the paper by an English speaking person.

Major essential revisions:

Abstract

Background: In the sentence “Clinical implications range from potential diagnostic delay to increased disease-related morbidity, as observed in highly endemic malaria areas.” It is not clear if the authors mean the impact of malaria infection on VL or vice versa or both. Should clarify.

Methods: The authors should clarify that the hospitals Um-el-Kher and Kassab are in the same region or state as those of Gedarif Teaching Hospital, Tabarakallah Hospital and Al’Azaza kala-azar Clinic and relate to the endemicity of VL and Malaria in the two study sites particularly since there were significant differences in the risk factors of co-infections including mortality between the two sources of data sets.

Introduction:

P4, authors should clarify that Um-el-Kher and Kassab VL treatment centers are in Gedarif State.

Methods:

MSF’s dataset: define the location of Um-el-Kher and Kassab VL treatment centers and refer to figure.

Results:

P10, paragraph under subtitle “Demographic and clinical features of…”: authors mention reduction of cases of co-infection by age but have to clarify that this is not observed in single infections with VL.
P10, when the authors say that infected patients treated with artemether and quinine had a higher mortality risk in patients receiving artesunate+SP did they account for the intensity of those infections prior to treatment, ie if the patients receiving the former drugs were much sicker the association with treatment is misleading.

P10, The authors say “Men and women were similarly affected by the co-infection (52% and 48%, respectively)” then later on in P12 they say that “Gender and age were identified as risk factors for the VL-malaria co-infection.” Which is it? Not clear…

P12, The authors say that “Neither the rainy season nor the intake of anti-malarial drugs prior to hospitalization significantly altered the risk for VL patients of acquiring malaria.” In P11, they say that the majority of co-infections occurred in the dry season, surely this means that being diagnosed in the rainy season would have a negative association with acquiring malaria? Authors need to clarify further.

P11, The authors determined the intensity of VL infection based on data of parasitaemia in lymph node or bone marrow aspirates; the authors need to provide more information on the scale they used to stratify their cases in the methods section and text.

P11, It is peculiar that in Al`Azaza kala-azar Clinic and Tabarakallah Hospital most cases were in young boys and in Gedarif Teaching Hospital it was mainly girls…do the authors have an explanation of why that may be?

P14, The authors have previously referred to the independent dataset as “MSF’s dataset” (P8) then give it the subtitle “VL-malaria co-infections in Gedaref State (1998)” please keep consistency when referring to data

Table 3 and Table 4 keep same key (+1, +2 or +, ++ etc.)

Minor essential revisions (non-exhaustive grammatical errors):

P5, Resulting “in” semi-immunity which ultimately…

P6, improving local management of VL cases. “Tabarakallah” Hospital, located in the eastern Atbara

P10, which “strike” mostly residents of Sennar State

P11, Authors jump from Table 1 to Table 3 then quote Table 2 in the results section. Please put in the correct order.

P12, Neither the rainy season nor the intake of…

P16, the frequent “co-occurrence” of malaria in VL patients…

P16, its “function” as “a” Regional Reference Hospital,

P16, treatment to exclude malaria as “a” possible complication.

P16, VL patients hospitalized in Gedarif Teaching Hospital “compared to” the
other two study sites… as “a” first-line action.
P18, compares “well” to what found in the most recent survey
P18, “nation-wide” in 2004
P18, therefore “have” partially resulted
P19, that the cohort of VL patients surveyed “here”
P19, resulting “in” few data being
P19, as those surveyed “in this” study.

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

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

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I declare that I have no competing interests