Author’s response to reviews

Title: Blackfly fever and dermatitis caused by Simulium kiritshenkei: A human case report in Iran

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Author’s response to reviews:

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BMC infectious diseases editorial office

Dear Dr. Robin L. Cassady-Cain

Thank you very much for reviewing our manuscript (INFD-D-20-00161). We sincerely appreciate all insightful comments, which help us to improve the quality of the manuscript. Our response to the Editor and Reviewer’s comments are described below in a point-by-point manner. Appropriate changes, suggested by the Reviewers, has been introduced to the manuscript (highlighted in yellow within the document). We hope that you find our responses satisfactory.

Yours sincerely,

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Editor Comments:

The quality of the English used throughout your manuscript does not currently meet our requirements, as there are several incorrect sentence constructions and grammatical throughout obscuring the message the authors want to convey. We recommend that you ask a native English-speaking colleague to help you copy-edit the paper. If this is not possible, you may need to use a professional language editing service. Use of an editing service is neither a requirement nor a guarantee of acceptance for publication.

The manuscript was improved in terms of sentence constructions and grammar.

We acknowledge that you have included the CARE checklist. However, we note that you have replied with N/A to a large number of the points. Given the nature of your case report, and the comments from the reviewers, we do not agree that a lot of these categories are not applicable. Please go over the guidelines again, and improve your reporting adherence. Please include an updated checklist with your revision.

The CARE checklist was updated and was submitted along with the manuscript.

Reviewer reports:

Andreas Krüger (Reviewer 1): This rare disease report adds indeed to rather few others on blackly dermatitis and other biting effects. It is concisely written and well supported, and there are only some minor corrections to be done, as follows.

✧ Thank you for pointing these out. We agree with all these comments. Therefore, we have modified these parts in the document.

1. p.2, Line10: should read "...these flies are considered as..."
✧ Done (at now it is in: p.2, Line12)

2. p.2, Line 14: should read "...following numerous blackly bites..."
✧ Done (p.2, Line13)

✧ Done (p.3, Line2)

4. p.3, line14: add as follows: ...importance in tropical and temperate regions...
✧ Done (p.3, Line9)

5. p.4, last paragraph: if the cause of Kawasaki has not yet been determined, how can you make any causal correlation to black flies from only one report? Explain!
✧ In the carried-out study by Watanabe have been mentioned that blackfly bites may have resulted in the development of Kawasaki disease in patients. (This part is modified in p.3, Line9)
6. p.5, line17: should read "...including winged adults and..."
  ♣  Done (p.6, Line8)

7. p.5, line28: What is ectomorpha?? Not an insect, to my knowledge.
  ♣  It was a writing error and corrected to “Ephemeroptera” (p.6, Line12)

8. p.5, line 31: delete "use"; "suggested to wear..."
  ♣  Done (p.6, Line15)

9. p.5, line 36: substitute "man" with "human case"
  ♣  Done (p.6, Line17)

Michael David Wison, Ph.D. (Reviewer 2):

♣  Thank you for pointing these out. We agree with all these comments. Therefore, we have modified these parts in the document.

Title:
The title should simple read "Blackfly fever and dermatitis caused by Simulium kiritshenkoi: a human case report in Iran". The literature review in the title is not key in the report but relevant for the discussion in the manuscript.
  ♣  The "literature review" statement is removed from the manuscript title

Abstract:
The case presentation of the abstract should report on how the patient's condition was resolved. The statement that "The flies were morphologically identified as Simulium kiritshenkoi using the keys...." is a methodology statement. I suggest the responsible blackfly vector was identified as Simulium kiritshenkoi. I am assuming from the manuscript that this is the first report of a combined dermatitis and blackfly ever in Iran and this should be stated in the concluding statements.
  ♣  The alleviation of patient's condition is added to case presentation section in the abstract.
  ♣  The statement of identification of the flies by morphological keys is removed from the conclusion section in the abstract.
  ♣  Also, we added the statement of "This is the first report of a blackfly fever combined dermatitis in Iran" in the conclusion section of abstract and document.

Case presentation:
The authors claim that the flies were collected by patients which implies several actors, this should be clarified whether it was the patient or several patients collected the flies.
  ♣  It was just a writing error and corrected to “the patient”
It is important to give the details of the treatment regimen that the infectious disease specialist employed e.g. whether it was a single injection of a specific corticosteroids (commercial name) and the dose used.

The details of treatment added

Both male and female flies were identified. If really male flies were collected and identified then the method of collection should be described since it’s only females that bite to seek blood meals.

All the collected blackflies by the patient were the female S. kiritshenkoi. And we just wrote the morphological characters of adult male S. kiritshenkoi for additional information in the manuscript.

Discussions and Conclusions:
The authors state that the devastating effects of insecticides are inevitable for other aquatic insects which is after stating that Bacillus thuringiensis (Bt) formulations are proven to be effective against blackflies. The authors should know that the recommended larvicides used for blackfly control are Temephos and B.t. formulations which act as endotoxins of dipteran larvae whose feeding involve the ingestion of particles including those of the two insecticides.

Thank you for pointing this out. We agree with these comments. Therefore, we have modified these parts in the manuscript.

“Black flies worldwide are managed primarily through the use of the bacterium Bacillus thuringiensis var. israelensis, which is aimed at the larval stage. Chemical insecticides such as temephos are not selective and have negative effects on other aquatic insects like Plecoptera and Ephemeroptera which are considered as a vital food source for insectivorous fishes, therefore, they are used only in a few areas of the world.”

The last concluding statement is not appropriate since it is recommending the study of blackfly species and their distribution in Iran, not the subject of the case report. Rather, the authors should state that being the first case of Blackfly fever and how it was treated, thus creating awareness should be there for any such incident in future.

The study of blackfly species and their distribution in Iran proposed just as a suggestion to facilitate appropriate preventive measures.

Ethical approval and consent to participate:
The authors should provide a reference to the ethical approval by the committee. The consent to participate is not relevant here.

The procedure of this study including diagnosis and treatment of patient was approved by the Ethics Committee of the Tehran University of Medical Sciences, however, the Ethics committee has not provided and announced any references to be mentioned in this study. Also, confidentiality of the details of the case was assured.
References:
The formatting of the references does not distinguish articles in journals, chapters in books and book titles. This should be addressed. Uppercase is used for Reference 7, which should also be addressed.

Reference 8 is not complete.

The formatting of all references updated

Figures:
The key morphological features should be indicated with arrows and labelled in the illustrations.

The key morphological features of female S. kiritshenkoi, collected by the patient, are indicated with yellow arrows and labelled and captioned in the below of the picture.