

Haematological changes in *Schistosoma haematobium* infected returned travellers

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Background

Earlier studies found characteristic haematological changes in African schoolchildren with an active *Schistosoma haematobium* infection. Full blood count (FBC) alterations might also be observed among travellers infected with *Schistosoma haematobium*. If consistently present, FBC may possibly be used as a surrogate diagnostic parameter for acute *Schistosoma haematobium* infection.

Methods

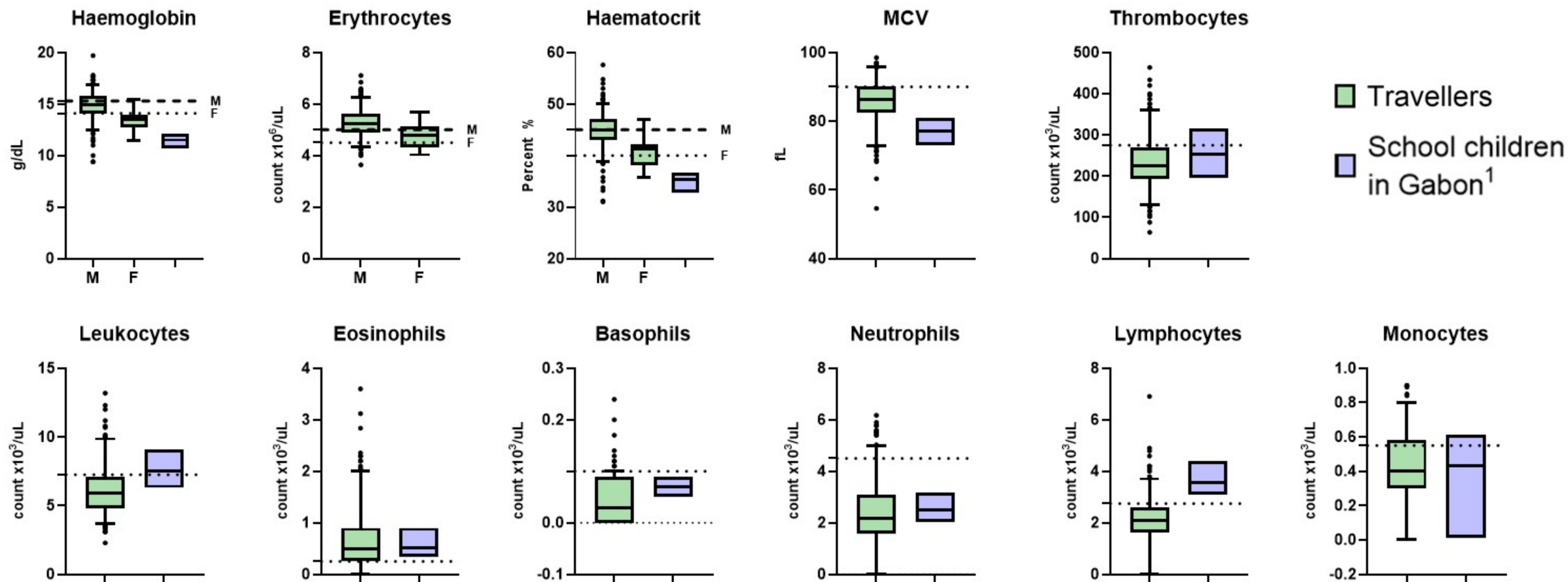
A retrospective patient record review was performed by six European travel clinics on returned travellers infected with active (egg producing) *Schistosoma haematobium*. The means of the FBC parameters were calculated and compared to normal population reference values.

Results

The data analysis included 231 subjects (mean age 22.7 years [SD = 9.0]). We found lower means of hemoglobin ($\beta = -0.4$ g/dL, $p < 0.001$ [males]; $\beta = -0.6$ g/dL, $p < 0.001$ [females]) and MCV ($\beta = -4.2$, $p < 0.001$), similar hematocrit ($\beta = -0.0\%$, $p = 0.992$ [males], $\beta = +0.7\%$, $p = 0.471$ [females]) and higher erythrocyte counts ($\beta = +0.3$ 10⁶/dL, $p < 0.001$ [males], $\beta = +0.3$ 10⁶/dL, $p = 0.137$ [females]). Thrombocyte and leukocyte counts were lower ($\beta = -42$ 10³/dL, $p < 0.001$ and $\beta = -0.06$ 10³/dL, $p < 0.001$, respectively); basophils, neutrophils, lymphocytes and monocytes were decreased ($\beta = -0.05$, -1.93 , -0.43 , and -0.09 , respectively, p for all < 0.001). As to be expected, eosinophils were increased ($\beta = +0.42$, $p < 0.001$).

Conclusion

An active infection with *Schistosoma haematobium* is associated with haematological alternations in travellers. Notably, these changes do not completely match those found in African schoolchildren, which calls for further exploration.



- Dejon-Agobé, J. C., Adegnika, A. A., & Grobusch, M. P. (2021). Haematological changes in *Schistosoma haematobium* infections in school children in Gabon. *Infection*, 49(4), 645-651.