



Schistosoma haematobium and its impact on the health of children from Guinea Bissau and Angola: a retrospective analysis

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Introduction

Schistosoma haematobium is a blood fluke responsible for human urogenital schistosomiasis. School-aged children with their habits of swimming or fishing in infested water are especially vulnerable to infection [1]. Infection occurs after infective stage larvae (cercariae) of *S. haematobium* that are liberated from freshwater snails, penetrate the skin of anyone that is in contact with water containing cercariae and then they are denominated schistosomulae. These migrate and develop into mature adults schistosomes in and around the vesical plexus, and occasionally in the rectal region, the mesenteric portal system and ectopic sites [2]. Concerning morbidity in *S. haematobium* infection, our studies in Guinea Bissau and Angola have shown: (1) in 51 children from Guinea Bissau: (i) macrohaematuria initial, terminal, irregular and total in 2, 41, 7 and 4 children, respectively; (ii) haemoglobin in urine in 49 children; (iii) dysuria in 34 children; (iv) sicnuria in 1 child; (v) vesical tenesmus in 3 children; (vi) pruritus: located in 16 children; generalized in 6 children; (vii) adenopathy in 32 children; (viii) spenomegaly and hepatomegaly not found; (ix) eosinophils in 49 children; (x) proteinuria in 36 children [3]; (2) in 328 children from Angola, self-reported dysuria, haematuria and suprapubic pain were 45.6%, 45.3%, and 34.9%, respectively, "macrohaematuria, microhaematuria and proteinuria prevalence were 22.6%, 64.8% and 68.4%, respectively [4]. All positive children were treated with 40mg praziquantel/kg. Generally, in high-transmission areas treatment may have to be repeated every year for a number of years. Monitorization is essential to determine the impact of control interventions. Praziquantel is the recommended treatment. It is effective, safe, and low-cost. Even through re-infection may occur after treatment, the risk of developing severe disease is diminished and even reversed when treatment is

initiated and repeated in childhood [1]. Effectively, it appears to be necessary to treat the children to avoid future severe consequences associated with the infection, namely those affected, as we found in our scientific investigation, with: (i) prostate adenocarcinoma [5]; (ii) sterility [6]; (iii) acute appendicitis [7]. We are in agreement with [8]: *Schistosoma haematobium* infection requiring special attention, in the prevention and treatment because it is well documented that the irreversible pathology caused by Schistosomiasis that occurs in adulthood can be effectively prevented by early treatment in childhood. This treatment with praziquantel during the primary school years reduce bladder pathology at a later age to almost zero. Even a single treatment given in childhood prevents half of the cases of female genital Schistosomiasis.

With the present editorial, we want to reinforce the call for attention on the impact of *S. haematobium* infection on children, and for the necessity to treat all positive children, and also to promote programs of control of the disease, and actions in education for health in all rural and urban communities, principally in schools. We do this with the aim of preventing the ominous complications in adulthood due to *S. haematobium* infection.

References

1. WHO, Schistosomiasis, 20 February 2018.
2. Eddington GM, Nwabuelo I, Junaid TA. The pathology of schistosomiasis in Ibadan Nigeria, with special reference to the appendix, brain, pancreas and genital organs. Trans R Soc trop Med Hyg 1975; 69: 153-156.
3. Grácio MA, Nhaque AT, Rollinson D. Schistosomiasis in Guinea Bissau, contract TS2-0205- Science and Technology for Development, Second programme (1987-1991), European Commission, vol 2 - Parasitology: 239-247.
4. Cardoso S, Pereira F, Falcão V, Grácio MA. Urogenital schistosomiasis: macrohaematuria, microhaematuria, proteinuria and self-reported symptoms as diagnostic indicators in an endemic rural population of Angola. XIX Int Cong for trop Med and Malaria (ICTMM) 2016, Brisbane-Australia, abstract book: 757.
5. Figueiredo J, Richter J, Borja N, Balaca A, Costa S, Belo S, Grácio MA. Prostate adenocarcinoma associated with prostatic infection due to *Schistosoma haematobium*. Case reported and systematic review. Parasitol Rev 2014, DOI 10.1007/100436-024-4250-9: 8 pags.
6. Figueiredo J, Richter J, Belo S, Grácio MA. Urogenital schistosomiasis presenting genital and urinary tract lesions and abdominal discomfort in a sterile Angolan woman. J Genit Syst Disor 2013; 2: 1-4.
7. Figueiredo J, Santos A, Clemente H, Lourenço A, Costa S, Grácio MA Belo S. Schistosomose e apendicite aguda. Acta Médica Port. 2014 May/June; 27(3): 396-399.
8. WHO. Neglected trop Diseases, WHO working group on urogenital schistosomiasis and HIV transmission, 1-2 Out 2009.